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AGRICULTURAL ADDRESS—ENTITLED "WHO IS THE PRODUCER?" DELIVERED BEFORE THE BEAUFORT AGRICULTURAL SOCIETY, AUGUST, 1840.

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Mr. President, and Gentlemen of the Society:

IF there is any situation less enviable than another, it is perhaps that of one who finds himself addressing an intelligent assembly on matters of which he knows little in theory, and still less from the habits of his life. Yet this is the position in which your good opinion—certainly no fitness on my part—has placed me on this occasion, and which your good opinion only can justify me in not declining. You will therefore doubtless pardon me, if, avoiding all discussion of Agriculture in its practical details—for I really know nothing of them—I invite you to hear me on some of those topics of this instructive subject, which have interest for every lover of useful knowledge, who is not himself an Agriculturist.

In one respect at least, the fate of Agriculture has been the same as that of Commerce, Manufactures, and all the other great interests of society. It has had to strive with the prejudices of friends as well as enemies, and has not unfrequently suffered as much by the one as the other. For next to the folly of believing ourselves to be always in the right, there is nothing perhaps more unfortunate than to be treated by our friends as such; for a vicious disparagement of others generally follows, which will find the limit of its injury only with the bounds of the weakness from which it takes its origin. Not that in these days of tariffs and commercial restrictions, there is much reason to fear the consequences of extravagant statements of the importance of Agricultural industry; but that such statements, besides being wrong in themselves, serve as pernicious examples to the friends of other interests, and by confounding the truth of things, help on the course of error to the common harm of all. The true policy of the Agriculturist lies in maintaining his merit to be what it is, not in denying all merit to others, or in arrogating every thing to himself as he was wont to do formerly, or rather as Philosophers were want to do for him.

The first error of note propounded on this head, was that of the French economists of the last century, who maintained that Agriculture was the only source of all national wealth and revenue, and that three sets or classes of persons co-operated in the production of these—the

proprietor of the soil, the laborer, and the merchant and artificer. Of these, the two first were distinguished as productive, the last as unproductive. For the labor of the one was continually adding to the rude produce of the land, while that of the other only helped to give it new forms and easy circulation, and so to continue its own existence, without producing any new value. The profits of this class merely replaced their expense—the profits of the former class not only did this, but brought a clear revenue of rent into the hands of the proprietor or landlord, to be spent in the reproduction of new wealth, or in the gratification of his appetites. This was the theory of M. Quesnoi, more generally known as the Agricultural System.

There is little praise in refuting an argument, which is no longer supported by any body. Yet it is certain that but for the plausibilities of this exploded theory, some of the fashionable errors of our own day would never have had place in the public mind. Although all reject it as having no foundation in fact, it is common enough to see its hoary fallacies paraded before us in all the tidyness and pomp of the newest and most momentous truths. It was easy to see on the first glance, that by hinging his theory on the productiveness of rent, the French philosopher assumed, 1st, the universality of rent, and 2d, the existence of rent as an infallible test of prosperous tillage; neither of which assumptions was borne out by experience. In our country for example, rent is a thing hardly known. Land here is so distributed, so cheap, so easy of acquisition, and withal so productive, that except in the towns, the relation of landlord and tenant seldom draws attention. None are tenants, all are proprietors. So it is in all new countries as well as in the old, where land is valuable. For no one puts his land at lease where the profits of cultivation are great. Rent is in truth the badge of a diminished, not an improved production; nor will tenants multiply where all men may become landlords. How illogical then to apply as a reason for the exclusive productiveness of agriculture, that which as a fact does not always exist, or exists perhaps to prove the contrary. There were other objections to this theory, which in the course of their accumulation had so much weight, that artificers, manufacturers, and at last merchants, were admitted into the class of producers, and put on a footing with those who at first claimed to be exclusively such. With these, profits would obviously be the same thing as rent with the Agriculturist. But as it has been shewn that agriculture yielding no rent, may yet be very productive, it follows that the designation of profits is as applicable to the surplus produce of labor in one of these departments, as in another. For wealth results from both. The method, too, by which this wealth is accumulated, is the same in them all, consisting as it does in merely adding to the skill and labor of the producer.

But there was still a reason for confining the title of producers to these classes of laborers. Their labor, it was said, fixed and realized itself in some sensible material product, which continued after the labor itself was past, and as occasion offered, set in motion some other equivalent amount of labor, which in turn replaced and multiplied itself in the same way. The Miner who extracted the mineral from the earth—the Merchant who brought foreign commodities into market—the Manufacturer who gave new forms to the raw products—all of these classes had, as the phrase went, something tangible to show

for the products of their industry. None of the others had. Their labor was intangible, immaterial—it perished in the instant of its production. The poet, the politician, the physician, the clergyman, the lawyer, the player, were in this particular situated alike—all of them consumed, none produced.

This distinction, which was for the first time taken by Dr. Smith and his followers, unfortunately contained no radical dissent from the Agricultural system, which those writers wished to overthrow—it only enlarged the class of producers by introducing a test, which was implied rather than expressed in that system. The great error of that system, as to the exclusive productiveness of Agriculture, it cost little pains to dissipate—it defied common sense at too many points—it tasked the faith of mankind too severely to withstand the touch of a rigorous logic. Its fallacy became obvious, as soon as it was brought to mind that the produce of the labor of some of the other classes, was in every respect as material and as sensibly marked as the produce of the Agriculturist. It was therefore necessary to restore those classes to the position of producers, from which they had been so unfairly thrust. But this was only modifying, not abolishing the original error—for *all* classes of laborers were not admitted within the pale of honor, and society found itself still separated into rival factions, one of which employed itself in consuming the profits of the other's industry. It might be useful—it might be necessary to that other in a thousand ways—it might have more intelligence, more education, more moral worth—still it enjoyed breath and being by means of that other's labour only.

I have spoken of this distinction as unfortunate, as every distinction must be, which purposing to root out old errors, is so put as to prove too much, or open the way for perverse construction. Its authors may have designed a very harmless thing, no more perhaps than a verbal distinction. For surely nothing was further from the thoughts of Dr. Smith, a philosopher of such eminent justice and discrimination, as a disparagement of a class of men of which he was a chief ornament. He could scarcely cherish a hope, much less a desire, of changing the natural proportions and relations of things, by grammatical quibbling. The attempt was too hostile to the spirit of his philosophy, besides being utterly preposterous on the score of policy. But whatever were Dr. Smith's intentions, we all have seen what use has been made of his example by not a few of his followers, in the denunciation of the clergy, which of late fell so liberally from the chair of political economy in our own college; in the anti-social organizations in the Northern States, known as "working men;" in the abject idolatry of the times for material wealth in all its forms, and in the studied depreciation by many, of moral and religious influences as means of national happiness. From the single and really unmeaning circumstance, of the labor of certain classes appearing to be unproductive *directly* of material values, as they are called—they leap to the conclusion that it is productive of *no value at all*, and that however industrious or useful, they are nevertheless in some sort the drones of society, "fruges consumere nati;" men literally born to eat up the substance of other people. Now let me ask any person who hears this proposition for the first time, whether he is not startled by it? Does it not disturb all your preconceptions of things? Is it possible that all professional men, all our functionaries,

all teachers of science, the judge on the bench, the surgeon in the hospital, the lawyer at the bar, the statesman in the cabinet, with their complicated, laborious, painstaking habits—Is it possible, I say, that every one of these persons live for no valuable purpose, or believes himself to be the stipendiary of others' bounty, or is taken to be such by them? Are they really aware of the misery of their lot? Or is the world, which is paying so dearly for their trifling, insensible to reason? Is it a common or a pleasant thing to employ ourselves in heaping rewards or toil which yields nothing, or for men to grow rich at the expense of their neighbors and to be moreover praised for so doing? Yes, these non-producers do labor, they are thrifty, they indeed grow rich, and nobody complains of being plundered, or that society is pestered by unprofitable members. Why, the fallacy of the statement is palpable on its face. But first impressions are not always the most just. Let us then examine the matter a little more closely.

Generally there is perhaps no better test of the productiveness of labor, than production, or which is the same thing, the wealth of the producer. But wealth is, the world over, nothing but an accumulation of exchangeable values; of values, that is, which have been exchanged for others, their equivalents, or are susceptible of being so; nor do these values take their measures from the circumstances of hardness, durability, size, color, or the like. The corn which perishes in a day, may be worth more than the ore which decays not at all, as a pound of lace may be worth more than a bale of cloth, and a judicious medical opinion or a profound legal argument, is often worth more than them all together. No, it is nothing of this kind—it is the aptness of things to the wants and comforts of men, that gives one or another the superior value. Every result of human labor which accomplishes this, whether tangible or intangible, material or immaterial, no matter what, has of necessity some exchangeable value, and is so far an element of wealth. If it is not, then wealth is something else than an accumulation of exchangeable values. If it is, does it not follow that he who by his labor, let it be never so immaterial, has accumulated that wealth, or in other words, who originated the equivalents for which that wealth is substituted, and which that wealth represents, is a producer? As for example, the poet who becomes rich by the effusions of a noble fancy, or the physician by the superiority of his skill, or the musician by the exquisiteness of his performances, or the lawyer by his eloquence at the bar. For how does the labor of any of these differ in point of productiveness, or of innocence as respects others, from that of the miner or the manufacturer? The old notion that men grew rich by the ruin of their neighbors, has been too long exploded in international politics, to be now made a topic of domestic calculation. *The wealth of one is the wealth of many*, says the wiser experience of modern times. A nation prospers as a whole, or suffers as a whole, and there is no possibility in the long run, and under free institutions especially, of any class of its citizens enriching themselves by impoverishing others, or of enriching themselves by any other means than the one I have already mentioned, viz.: by improving the quality and quantity of their labor.

The truth is, all the difficulties of this subject have arisen from the mistaken ideas of the nature of value, about which so little has been thought, and so much said, that no wonder sensible men find themselves

implicated in contradictory conclusions. Let us look at this topic for a moment.

In strict propriety of phrase, matter is not an ingredient of value at all; although it may answer well enough some purposes of convenience, to speak of material and immaterial values, if no more is meant by this language than to give the popular classification to the products of human industry; those being called material, in which our attention is addressed to the results of that labor, as the cotton of the cotton planter for example, or the calicoes of the manufacturer, and those immaterial, in which the act or effort only of the producer is had in view, as the act of the wagoner for example, in taking these products to market, or that of the merchant, in sending them abroad. In this sense, perhaps, no harm arises from saying that the former are engaged in the production of material values, and the latter in the production of immaterial ones. But at the bottom there is no difference, for the planter no more creates or adds to the matter he is concerned with than the merchant, or any other person. *Matter is generally defined to be an inert, insensible, imperishable substance, possessing extension, resistance, form and motion*, and it is as much beyond our power to increase or diminish so much of it as is already in existence, as it is to protract the span of our own being. All that is possible, is by changing its place and the relation of its parts, which may be done in a thousand ways, to effect what we are pleased to call production. The planter puts the seed into the ground, promotes its vegetation, removes obstructions to its growth and maturity, and finally gathers the cotton into his barn and prepares it for market; the wagoner takes it from the plantation to Charleston, as the planter had previously taken it from the field to his barn, and the result of their joint effort, is an introduction into market of a beautiful commodity, which yields to each a profit or value proportioned to his labor, the one or the other receiving the largest share, as the cost, or which is the same thing, the labor of production, or that of transportation, is the greater. If the latter is small, the Agriculturist is the greater producer—if large, as in many parts of the east and some of our own country, the transporter may be the greater producer. *But labor, immaterial, intangible labor*, is the element of the value produced in both instances, and the material commodity is merely the subject or *substruction*, so to speak, in which that value inheres. Of the qualities and constitution of matter however, it partakes in no sense; nor does it necessarily add at all to the bulk of the rude materials it is mixed with. For as soon as the commodity passes into the hands of the manufacturer, we find its weight and size reduced, and yet its value so far from suffering, is multiplied perhaps a hundred fold. So it is with the labor of all the mechanic arts: the wear and tear it necessarily puts every thing to, uniformly curtails its bulk. How unreasonable then to speak of labor as producing material values! How much more unreasonable to insist on a production such as this as proof of the fact; a production which either adds nothing to the thing produced, or wasting its bulk, does little more at the same time than impart to it a change of form or color.

But to return to the topic in hand. If we can add nothing to the matter already in the world, it is obvious that before the creation of man it must have been, in respect of bulk, precisely what it now is, with perhaps some variations of surface. Every thing stood as to

form and relation, as the laws of nature in their ordinary operation placed it. There was of course no such thing as value, for as there was nobody to want any thing, so there was nobody to bestow on any thing that labor which might have made it valuable. In a word every thing must have been utterly valueless. On the other hand, if we take the world as it is with its thronged and busy population, and suppose all the objects of desire to be placed at once within reach of us all, so that nothing that is wanting but is at hand and may be taken, the result would manifestly be the same as before, and all values would instantly perish. The planter would not buy from the merchant, nor the merchant from the planter, nor the manufacturer from either; for each would be in possession of every thing the others have; all exchanges would necessarily cease, and the very name of value be forgotten. For if there is no labor there can be no price, and if there is no price, how can there be any barter? So if things remaining as they are, you suppose the motives to labor, that is our desires, to be suddenly extinguished, the very same consequence would follow, viz: the annihilation of all value, and therefore of all production. For although the objects around us would remain the same as before, as regards their qualities, form, position and the like, yet the immaterial relation of desirableness ceasing, every thing would be without value, as completely as if no labor had been spent on them in the first instance, or any value attached to them.

So that whether we look at these objects as the products of nature or of art, and in association with man, or without it, the conclusion we are brought to is uniformly the same—*that value is something wholly immaterial, having no identity with these objects, and that production is only the process by which that value is temporarily associated with them.*

These remarks, you will observe, are made with reference to two classes of producers only. First—the producers of "material values," of whom the Planter and the Manufacturer are examples; and secondly—the producers of "services," as they are called in the books, to which class Factors, Servants, and the like belong. And it is plain enough that in the first stages of society, there were no other producers. But this would be owing not to any impossibility of there being none others, but to the absence of all desire and occasion for them. Men's wants are at first necessarily gross, and require gross gratifications. But as there is nothing material in these wants or in the labor requisite for their gratification, it would follow, that as the former became refined, the latter would become refined also, and in the same proportion, and new values, immaterial in their nature as well as in their association, and other sets of producers, would come into existence—the musician, to sell his music; the poet, to sell the effusions of his fancy; the jurist, to sell his counsel; the lecturer, to sell his science; the actor, to sell his dramatic exhibitions. Every new want would raise up a new producer, the produce of whose industry would be measured by the same tests which determine the value of the labor of the classes already mentioned, viz.: the intensity of the want, the amount and quality of the labor, and the limit of the supply. The products of the industry of these would be *marketable*, so to speak, as much as the products of the industry of the planter, the merchant and the manufacturer, and would form, according to circumstances, a large or small portion of the national wealth.

To show the universality of this principle, let us put together an example or two from the different classes of producers. The Merchant belongs to the first class, or the producers of "material values," or the *real producers*, as they are called. Let us examine the character of his production. Commerce is defined by Mr. Say to be "the conveyance of commodities from place to place, with the view of bringing them within reach of consumers." The Merchant works a modification in the circumstances and condition of things; this is all he does. He buys as he sells, at the current price; but the last price exceeds the first, and to the extent of that excess he is a producer. He takes the commodity out of the situation in which it sold for little, and puts it into a situation in which it sells for much, and the difference, or his profit on the transaction, is the amount of the value or wealth which he adds to the common stock; and this whether his commerce is foreign or domestic. If it is foreign, the commodity which he brings back into the country is not *per se* so much added to that stock; for he had already diminished that stock by withdrawing from it the commodity which he parted with in exchange for this. If his trade is domestic, his contribution to the common stock is still the same; for the doctrine of the superior productiveness of the one kind of commerce over the other, has been long since exploded—money being in the transactions of both, merely the index or representative of the labor which is the element of the values produced. Nor is there any difference between the introduction of a new value into the country, and the creation of a new value here, as evidence of production in one case and of non-production in the other, any more than exportation is a sign of poverty, and importation a sign of riches. Whether his trade is from abroad or at home, the Merchant grows rich and makes his country rich, as all other people do, *by his labor*, and by nothing else; and no commodity, whether of foreign or of domestic origin can exist, that is not of the nature and in the place it is, by means of that labor, and as its representative. So much for the productive classes. Let us now turn to those which are called "unproductive."

The Lawyer is a familiar example. Let us take a case of common occurrence in his practice. A tract of land in St. Helena Parish, we will suppose, has been lying waste for years on account of some confusion in the titles. Nobody will either buy or lease, for nobody can buy or lease safely—it is in short in its present circumstances, utterly worthless. The Lawyer by his skill, no matter how exercised, relieves the title of its uncertainties, and an English capitalist buys, and the land, which formerly produced nothing, now yields a profit of ten per cent. to the proprietor. Is there not here a positive addition to the wealth of the parish? Yet it is manifestly the result of immaterial skill, and the lawyer turns out to be a producer in the very same sense the Merchant is a producer—that is, he has increased the wealth of the parish by adding to it a value which is indicated, 1st, by the gold and silver brought hither to be given in exchange for the land; and 2nd, by the annual addition of ten per cent. to the revenue of the community. So if the purchaser comes from Charleston, or is one of ourselves, instead of coming from abroad, the production would be precisely the same; the circumstance of the money paid for the land having a domestic origin instead of a foreign one, being as little to the purpose in this case, as in that of the Merchant. The Lawyer, by a change of cir-

cumstances in the land, imparts to it an exchangeable value, which shows itself in the shape of profits. The Merchant, by a change of circumstances in his goods, adds to them exchangeable value, which takes the shape of profits also, and the profit to themselves and others effected by the labor of each, is the amount contributed by them respectively to the national wealth.

But there is another class of producers, the value of whose labor, though less easily measured, is nevertheless far greater than that of any I have yet mentioned. Who that casts his eye over the surface of society, and sees the wonderful changes for the better it has undergone in every part of its progress—how man has passed from darkness to light, from want to abundance, from misery to prosperity—but must acknowledge that it is to the man of science, by training his mind to a love of knowledge; that it is to the statesman, by enacting wise laws; that it is to the religious teacher, by soothing his passions, purifying his feelings, multiplying his duties, and elevating his hopes: that it is to these, I say, above all others, he owes this amazing progress in the comforts and accommodations of life. Look at the scholar, for example—he is said to be a non-producer: he writes a book; he becomes a producer. Why? Has he created or introduced any new material value? Not at all. For the value he has produced is an immaterial thing, in every sense of the word. It has nothing of matter in or about it—it is briefly a collection of ideas arranged and represented by sounds under the symbolic characters of written language. And this immaterial work is valuable or not, in proportion to the genius of the author, and the want of the community for it. But the material volume in itself has really no value at all, and is moreover not a production of the author, but of the stationer and printer, who rely for its bringing any thing in market, on the excellencies of the author's thoughts, which it is their business to offer to the purchaser in this form. The immaterial character of literary value is therefore a thing of universal acknowledgment—it is so declared by your laws of copy-right; by the Judges of your courts; by the verdicts of your juries. But books are only one of the forms in which the value of the scholar's labor is represented, and it is not of necessity less in amount for not appearing in this form. It may be greater in the school-room, in the lyceum, in the pulpit, or at the bar, and is indeed greatest where it is least palpable, *in enlightening the minds and meliorating the morals of men, and thus adding most efficiently, although less directly in the end, to the sum of a people's industry, and therefore its wealth.*

The same reasoning will apply to the business of the politician and the religious teacher. To judge fairly of the contribution of each of these as well as of all the other producers to the common stock, we must look to the *final* account of the whole matter—the question being who *in the end*, whether directly or indirectly, in a little or a long time, makes the largest contribution. Taking this rule for our guide, who can doubt that religion, education and government, have accomplished in one way and another almost the whole task of the civil reformation of our times. Mr. McCullough ascribes the prosperity of the British Empire to three minds chiefly—may we not go further and say, that the whole machinery of modern civilization is a combination of moral and therefore immaterial contrivances for man's prosperity and happiness.

But perhaps it was meant to be said, not exactly that the classes I have been speaking of are not producers at all, but that they are producers *instrumentally, that is, in aid of the real producers, and as their instruments.* Of themselves they add nothing to the general stock—all they do being done through the others, who thus after all combine and represent in themselves the entire wealth and revenue of society. To this objection, which has been in effect answered already, I reply, that the non-producers possess and represent in themselves in proportion to their numbers, and as the product of their own labor, as much wealth as the producers. This is matter of fact, as all eyes may see, not of speculation. The dwelling house of the Physician, which he has purchased with the profits of his practice, is not less his than the warehouse in his neighborhood is the property of the Merchant who built it with the profits of his commerce. Nor can it be shewn how the one was, more than the other, the instrument of his neighbor in acquiring his property, nor how his wealth is involved in that other's, or is in any way represented by it, nor why it cannot exist separately from it, without it, and even in opposition to it.

But perhaps I am again mistaken. I may be reminded that it is not with reference to the other classes, but *to the powers of nature*, that the unproductive classes, so called, are spoken of as instruments. The productive classes create the wealth of society—the unproductive classes help to its increase and security, by facilitating the operations of the powers of nature which are concerned in its production; as the Physician does who mends the health of the laborer, or the Judge, who by settling disputed boundaries, opens to cultivation large tracts of valuable land. They are the aids and supports, the pegs and pins, if I may so speak, of the social edifice, which serve very well to keep its parts together, but add nothing to the compass and materials of the fabric.

It is worthy of remark, that the argument *formerly* was, that the Agriculturist was the only producer, because he was the only person with whose labor the laws of nature co-operated. But let us take it as it is now put. How much, let me ask, of what the Planter calls the produce of his labor, does he really create? From the seed to the harvest, how much of the creator is there in the part he plays? Does he give richness to the soil, pregnancy to the seed, moisture to the clouds, or warmth to the sun? Is he master or ruler over one in a thousand of the circumstances, c ntingent or fixed, concerned in the production of his crop? What is his sovereignty? Where does it begin? Where does it end? What has it accomplished? A little stirring of the earth; a few seeds carefully strewn; an implement or so judiciously used, by hands too not his own—and this slave of the seasons, this stipendiary of chance, stands forth the proud creator of all wealth—at whose smile commerce decks the seas, philosophy lights her lamp, and justice builds her throne. The poor clown who awoke and found himself Ruler of the Faithful, was hardly more amazed at his metamorphosis, than the distrustful unobtrusive planter must be, on hearing this miraculous account of himself. Vanity may whisper in his ear, that the truth of the thing is not surpassed by its novelty. But he is too shrewd a man not to discover very soon what he knew well enough before, that like other mortal men, he is in the strictest sense of the word, *an instrument of the laws of nature, and that he cannot throw off*

or dispense with their dominion; and that production, of whatever kind, is nothing but a fitting arrangement of those powers with a view to their co-operating towards particular ends. Dr. Watt, I suppose passes with planters, as he passes with other persons, for a producer of some consideration. Yet what is there in the steam engine, that is not, with reference to human labor, entirely instrumental? What is this prize of modern civilization, before which the glory of Egyptian science grows dim, but a combination of agencies, the very least of which is that of him who triumphs in the honors of its creator? It is indeed only instrumentally that man's labor can produce any thing at all, nor while nature remains as it is, is there a possibility of his appropriating more than a small share of the production.

The conclusion I come to from what has been said, is therefore this: *that all labor is alike productive, though productive in different proportions, and that the distinction of the classes of laborers into productive and unproductive, has no foundation in fact, and is equally condemned by reason and experience.* The error had its birth in an abuse of words, and it would have been well had it never gone further than an abuse of words. But words have often the power of things, and the example of carelessness or perversity in the use of them, once set, there is no telling how far we may wander down the path of error. The commercial system once taught the very same thing in regard to commerce, which the agricultural system afterwards set up, in behalf of agriculture, viz: that *commerce* was the parent of all national wealth and revenue. But the merchant and the farmer only anticipated their neighbors, in this race of vain pretension. For the manufacturer soon stumbled on the same discovery respecting his industry, which the world should have long since known was the only national industry, and last but not least, the mechanic emerges from the dust and lumber of his workshop, to reclaim the trampled rights of the only working man in the world. They are all too, in earnest. It is no longer a matching of logical conclusions, as was the case in the days of M. Quesnoi; the game is sport to nobody; men are now debating whether to put down these heresies at the point of the bayonet. It is a fact which history will record with not less wonder than melancholy, that a large part of the citizens of the Northern States are in hostile array against the rest, whose wealth they believe to be the spoils of their industry, and for the redemption of which they are ready to appeal to force. Can we wonder at a people's refusing justice to others, who are so unjust to themselves, or that they should treat our property as if it was theirs who doubt their titles to the products of their own industry? Nay, allow me to go a step farther and enquire by what right we take even their errors to task? If there is one opinion in which the people of this State are more agreed than another, it is in the truth of the famous "forty bale theory" of one of our first statesmen. Yet what is the principle of that theory but the same ancient heresy of the French economists, which I have exausted your patience in combating, viz: that the agriculturist is the only producer. For the duty on imports being confessedly the same thing as the duty on exports, and the exports being almost wholly the planters property, it follows inevitably, it was said, that he paid throughout almost the whole duty on the imports, which under the tariff of '28 was fully forty per cent. But there were two things assumed here, both of them perhaps without sufficient

reason. First, that the planter was the only producer, which I have already shown not to be so; and secondly, that the planter *in the end* paid the whole tax, which could be true only in case he was also the only consumer. For as other persons produced nothing to be taxed, so they could consume nothing that was taxed, and the whole burden of taxation, because the whole business of consumption, would fall on the planter. But allow me to ask was not this arrangement a perfectly fair one? For what equity is there in obliging those to pay any thing, who produce nothing—or in excusing those from paying every thing who not only produced every thing, but consumed every thing? This would be reversing not the equality but the *posibility* of things. For by the argument, the non-producer has nothing wherewithal to pay the tax, unless he plunders the planter of so much, which might perhaps leave both in a worse condition than if the whole load of taxation were thrown on the planter in the first instance. This consequence was too plain not to be seen by the French economists, who (without admitting that the other classes consume nothing, as I have shewn must be the case if they produce nothing, unless they are paupers or spendthrifts) at once declared for taxation on the agricultural interest exclusively, as the only producing interest, and for that reason the only interest which ought to be taxed, and in common consistency no doubt they could not have done otherwise. Our statesmen however did not reason thus. The planter, they said, was the only producer, but it was oppression to make him the only tax payer, for that would be exempting all other persons from their due share of the public burdens, and to the extent of that exemption, be giving them the advantage of an undue preference. The American's and the Frenchmen's conclusions were contrary enough. And yet, if dissent from such authority may be allowed by one so humble, perhaps neither of them were wholly right or wholly wrong. The premises of the Frenchman were wrong, but his conclusion was consistent and followed from them necessarily. The American was also wrong in his premises, but his conclusion was inconsistent with them, though right in point of fact. But it must be obvious from what has been said, that the tax could attach—whether justly or unjustly is nothing to the purpose—on the planter exclusively, only in case there were, 1st, no other producers to be taxed directly at the place of importation, in the first instance, or indirectly in the course of domestic exchange afterwards—and 2nd, that there were no other consumers but the planter to divide with him the costs of production and importation. On the first point I would observe that the argument obviously can have no application but to the south, or to a country which is exclusively agricultural, and in which therefore there are no laborers but planters, which however is not the case with every part of our country; and for the last point, it may be sufficient to remark, that the consumers in the United States like the consumers in France, far outnumber the cultivators of the soil.

But, gentlemen, you really have no occasion for fallacies of this sort, whether old or new. The oppression inflicted by the American System on the people of the South, was in all probability quite as heavy as it was represented to be. But it was so, perhaps, for other reasons than those assigned by some persons. Nor need Southern Planters covet the praise of being the only producers in the country—they have enough to be proud of otherwise. You possess a soil abounding in

every product the wants or comforts of man call for. You have a social organization that combines the personal independence of Feudalism, with the public devotion of the Roman aristocracy. You live in an age where knowledge is the property and right of all. You belong to a race who have adorned the barren earth, until it has become a panorama of wonders. You are heirs to Republican institutions, of which Plato only dreamt, and for which Cato would have rejoiced to die. Names too have arisen among you, which Athens would not have blushed to honor. Need I remind you of one of these, who, drawing his first breath in your little community, left you, to earn on a wider theatre a renown, the brightness of which, like the decayed fires on our mountains, still lights up our horizon long after the luminary has gone down. The Greek Philosopher, at the age of 80, mourned that he must die so soon; is it without reason that we mourn the death of Stephen Elliott, at the early age of 54.

"O Decus, O Dolor."

Who shall count our loss? A heart how alive to every human pang! A hand how liberal to every human want! A memory how rich in the spoils of every science! An intellect how like the vision of the eagle, which bathing itself in the mild radiance of his flight above the clouds, yet counts the smallest straw that mingles in the dust beneath. Whom could we have spared less? Years have passed since this sad breach among us—yet who has risen up to fill it? Let us not, gentlemen—let us not forget this bright example of wisdom and virtue. Let us cherish it, for it is in the memory of such that a people's renown becomes immortal. Let us cherish it—alas! how vainly for many of us—that we may learn from it to be wise and good also. Let us cherish it—that when we too are summoned to give up this "wayward and forlorn" existence, we may, like him, lie down with the dead, crowned with the blessings and sorrows of the living.

For the Southern Cabinet.

A HURRIED VISIT TO NEWBERRY DISTRICT.

[CONCLUDED FROM PAGE 647.]

The Orchard.—Not much attention to Fruit Trees has been paid in this District. The Orchards were in a state of neglect to a considerable extent. No great care had been bestowed on replanting young trees in the room of old and decayed ones, and not sufficient interest has been felt in introducing the many delicious varieties now cultivated in Europe and the Northern States. I did not hear that any Orchards were manured, a process so necessary to the production of good fruit, and my inquiries did not lead me to believe that either the mode of pruning was well understood—or that of engrafting generally practised. I observed, however, one striking and gratifying exception to the above, which although not immediately in the District, is on its very borders, in Lexington. A gentleman has imported the choicest varieties of fruit trees, and

has an extensive Orchard—the trees appearing in fine order. Indeed this circumstance was regarded so memorable and praise-worthy, that the post office at that place which was once named Countsville, has been changed to that of Pomaria, and it is to be hoped that its reputation for good fruit will fully entitle it to its classical and appropriate name.

Apples—Have scarcely succeeded better in this District than in those adjoining, where complaints are made that our frosts in spring, often destroy the fruit, and that the Winter apples of the North, ripen in mid-summer, and that there is scarcely a possibility of preserving them beyond the month of October. This is an evil consequent on our long summers. Yet it would seem not to be altogether insurmountable. That Apples which ripen very early may succeed in Carolina, I have ascertained from having seen one variety at least, of a very delicious flavour, bearing abundantly for many years in succession, in the vicinity of Charleston. There are several varieties of Winter apples propagated in the Middle States that come to maturity so late in autumn, as to be endangered by the frosts—and there are some kinds in England which are said to have been carried to the East Indies and back again without decaying. The English apples, however, I invariably found inferior to those of America—as a proof of it, I frequently saw apples which had been imported from New York, sold in the markets of Liverpool and London, and they invariably brought double the price of English Apples. I would therefore in all cases recommend that fruit trees of this species be imported from the Northern, or rather middle portions of our own country. I have some hesitation in recommending the variety of Winter apples best adapted to Newberry, as these matters must after all be submitted to the test of experiment. It would be advisable to make a trial with several kinds that are known to ripen latest. The Apples that I saw in Newberry in November had been brought in wagons from North Carolina, probably from the mountainous regions. Notwithstanding the long over land carriage, they were in a good state of preservation, and well flavored.

There is another consideration entitled to some weight, and deserving at least of a more careful experiment than has hitherto been made. May not fruit trees which on their first introduction from a more Northern latitude be gradually assimilated to our climate by successive engraftings? An intelligent horticulturist of Pendleton, has recently informed me that his imported trees of the Newtown pippin scarcely bore any good fruit. He engrafted from these on native trees, and in process of time has succeeded in raising a good supply of fine fruit. This is very rational, and corresponds with our experience in other departments of the laws of nature. I have seen the Carolina flint-corn when planted in the Northern States ripening but a few of its grains the first season, owing to the short summers. The seed planted the next year ripened late in the season—on the third year it came to maturity so early as not to be endangered by the frosts. Trees and vegetables like the human race adapt themselves to a great variety of soil and climate. This is more especially the case with annual plants and deciduous trees. Even plants from the Southern hemisphere where the seasons are reversed, and where they blossom and bear fruit during our winter adapt themselves to our climate. The common Four o'Clock, *(Mirabilis Jalapa,)* a native of Peru, is a familiar instance. When first introduced into England it bloomed in winter, and was consequently a green house plant. By

successively planting [illegible] it has at length adapted itself to the reversed season and now blooms in summer. The same may be said of a host of plants from New Holland, the Cape of Good Hope, and South America. The Cotton plant is perrenial, within the Tropics, but with us is annual. Vegetables, Shrubs and Trees of Southern climates are gradually travelling northerly, and why may we not also gradually assimilate Northern trees to more Southern climates?

Pears.—This delicious fruit is known to succeed well in every part of our Southern country, and although not much cultivated in Newberry, is fully deserving of much greater attention than it now receives from the inhabitants. As dried fruit, it is far superior to that of the Apple, and several varieties preserve tolerably well through the winters. France and Germany produce the finest Pears, and trees imported from Bordeaux have uniformly succeeded better in Carolina than those received from the North. The same may be said of the Apricot, Plum and Peach grafts, or inoculations made on native stalks, on the Quince or Hawthorn succeed equally as well as imported trees; the only advantage of importation being the introduction of superior varieties. The Pear is a very long lived tree, continuing to bear during several generations of men. The natural tree seldom produces fruit under ten years, engrafted trees in three or four. The trees are greatly improved by manuring. I was witness to an experiment made on a Pear orchard which had for several years borne scarcely any fruit. A row of trees were selected—the earth was dug several feet around the roots—two cart loads of decayed leaves, vegetables and marsh mud were placed around each tree in the month of August or September,—the remainder of the orchard received no attention. The manured trees bore abundently the following year, the rest as usual, produced no fruit. Some of the limbs of the Pear tree sometimes die suddenly, which is generally ascribed to the effect of lightning. It is doubtful whether this is the cause, as no traces of the electric fluid are seen, and were this the fact, the whole tree and not a few straggling limbs only, would be destroyed. A healthy tree in a state of growth is seldom affected in this manner, and it will probably be found that the roots have not afforded sufficient nourishment for the superabundent growth of limbs. Digging around the roots—removing decayed ones and manuring the rest, will generally preserve and improve the tree. I have known a singular experiment, which is generally set down among the vulgar errors, attended with success. A tree of vigorous growth that had never borne fruit was bored through the centre and a wooden peg driven in. The result was, that it bore fruit on the following year. Cutting the bark longitudinally or otherwise wounding and bleeding the tree, would no doubt have produced the same result. This may be accounted for on true physiological principles, without resorting to witchcraft for a solution. By this venisection the juices which would have produced new shoots are drained off, and the fruit buds, which flourish most when the shoots are but sparingly multiplied, are formed. It is like bleeding a man with apoplexy—letting out the superabundent fluid and giving a new direction and a healthy action to the rest. The Pear tree sometimes becomes, what may be aptly termed hide-bound. This is commonly the case in unfavourable soils and when it has been neglected;—the bark becomes so thick and hard that the tree ceases to increase in size or to flourish. longitudinal incisions—the scrubbing brush with ashes, soap, or other

alkalies are usually attended with beneficial results. But even when all these remedies fail I would not yet cut it down as a cumberer of the ground. I would advise another remedy which I have more than once successfully tried, but which will I fear call forth the smile of incredulity. From the 19th to the 23d of June, viz: when the days are longest, let an incision be made through the bark near the roots of the tree—let the bark of the whole tree be pealed upwards, including the largest branches. The tree will not die as might naturally be supposed, but young and healthy bark will be formed without any further care or any external applications. This mode of resuscitating a decayed tree is not a new discovery—it was known and recommended, if my memory does not deceive me, by Forsyth, one of the oldest writers on, and most successful cultivators of Fruit Trees. I add the following list of some of the finest Pears growing in the South of Europe, that I have supposed might succeed well in Carolina. White Beurré, Styrian, Maria Louise, Duchess d'Angouleme, Green Beurre, Holland Bergamotte, Jargonelle, Little Muscat, Royale d'Ete, Gros de Lyons, and German Muscat. I might enlarge this list very much, did I believe it would be attended with any practical results. Several of these varieties obtained from Bordeaux, in fine order, were recently for sale in this city.

Peaches.—I was much disappointed in the Peach orchards of Newberry. They appeared much inferior to several which I saw in the neighbouring districts of Richland and Lexington. It was complained that the tree, which is short lived under the most favorable circumstances, here survives only a very few years, and is greatly retarded in its growth, and soon destroyed by the insect, which in its grub state is a famous borer, piercing the bark and wood near its roots, from which the gum exudes, and the tree soon perishes. Ashes, lime, and other alkalies, oil and tar has been tried, without any beneficial effect. To show how utterly useless are all these remedies at the period when they are usually applied, viz: in the winter and spring, it will be only necessary to give a slight sketch of the habits of this destructive insect. In its perfect state it is a kind of moth, bearing a considerable resemblance to some of our species of wasp, although it belongs to a very different family. It is about two thirds of an inch in length. The wings are transparent. Colour of the male, black, with a tinge of blue, two pale yellow bands on the abdomen, tail much fringed. Female, dark steel blue, with a tinge of purple, tail not fringed. In their general appearance the sexes would scarcely be taken for the same species. Entomologists have named it *Aegeria Exitioso.* From about the middle of June to the middle of July, the female doposits her eggs (in all cases by night,) to the number of from 50 to 200. These are laid a little below the surface on the bark, which is a little perforated, as if an awl or some sharp instrument had been used. I have seen a second deposit of eggs made in September, although in a majority of cases the eggs are laid in spring. In a few days these small, almost transparent yellowish eggs are hatched, and the larvæ, small worms, appear. They are of a cream colour, with reddish brown heads, and may be seen of different sizes, from a quarter of an inch to an inch in length. They now perforate the bark an inch or two below the surface, feeding voraciously on the inner bark, the liber and alburnum, leaving the outer bark as a protection. They now descend downwards towards the roots, and continue feasting during the summer, autumn, and winter, when they make their way upwards, enlarging their

holes and continuing more destructive as they increase in size. About the beginning of June, after having accomplished all the mischief for that year, the larvæ now enters the pupa or chrysalis state, and may be discovered close to the trunk, enveloped in a mass of gum, which is constantly oozing through the wounds. In eight or ten days afterwards, its metamorphose is complete, and it becomes a moth, ready to deposit its eggs for a future progeny.

From this history, the result of experiments which I have frequently repeated during a succession of years, it will be seen how ineffectual are all the applications usually resorted to in autumn, winter and spring, to destroy this pest of the Peach tree. Nothing that will not positively kill the tree can reach the insect, which is safely imbeded in the inner bark or the wood We must therefore resort to prevention, which is always better than a cure. It saves doctor's bill's to keep the patient healthy, rather than wait till disease has ruined the constitution.

To detect and destroy the moth seems impossible, as it is altogether nocturnal in its habits, and during the day lies concealed in hidden retreats. The only remedy then seems to be to destroy the eggs or the young before they have penetrated the bark. I have tried the following remedy with invariable success. About the middle of May I have tied around the peach tree a piece of oil cloth—or canvass previously dipped in hot tar, or what I prefer, a common sheep skin with the hairy side outwards—commencing about 18 inches above the root, and inserting the lower end five or six inches in the earth. If the insect deposits its eggs on the tree, it will be on this covering, through which the worms never penetrate. About every month I have removed the covering for a few moments, in order to destroy the eggs or the young worms. These however, I have seldom found under such circumstances. The covering was finally removed in the latter end of September. I am not aware that in any instance a tree treated in this manner was affected by the Aegeria. There are several valuable articles in the American Farmer on the above insect, but I cannot refer to the volume, as I have not at this moment any access to the work.

Another Insect which affects not the tree, but the fruit, is infinitely more formidable, but of which I heard no complaint in Newberry, although I have no doubt of its existence there, as it has generally spread over all the old settled districts of our country. It is the Curculio, of which there are three species in the vicinity of Charleston, but whose habits are precisely similar. After the fruit has formed, this diminutive marauder climbs up the tree perforating every peach in one or more places and the fruit either drops prematurely or is so injured as to be of little or no value. Paved yards, removed from the neighbourhood of other trees planted in cultivated fields—and hard clay soil on which hogs and poultry are suffered to run are usually secure, because in such situations the insect in its worm state is either destroyed or can find no place to burrow. New lands and young trees are for a few years unfit for the Curculio. Sandy soils, gardens and fields long cultivated, are favourable to their production, and from these situations, when once introduced, they are with great difficulty extirpated. As the Curculio is unable to fly upwards, it invariably crawls up the tree during the evening and at night. To prevent this ascent is a desideratum which merits the attention of the ingenius mechanic, as well as that of the horticulturist. An invention should be resorted to, by which the acent of the insect might

be prevented. The Shakers, in the Northern States have adopted the following mode, which is said to be a perfect safeguard. Two thick boards, supported by a slight frame work, are fitted so as to clasp the tree, leaving the insect no opening to crawl through any crevice—the boards are grooved and tongued so as to render them water tight. On the upper surface a circle of 3 or 4 inches wide is cut, so as completely to surround the tree—this groove is either filld with water or tar diluted with oil. It is said the insect never crosses this barrier. A tin box containing water, so constructed as to surround the tree, and placed two or three feet above the roots would probably be more convenient and desirable. We possess the finest climate in the world for the Peach. Its flavour owing to our warm summers, is finer than in any part of Europe. We have also in Carolina a sufficient number of choice varieties, and it is therefore a matter of great importance that we endeavour to discover some remedy against the evils above stated. In Europe bone dust is extensively used as manure, applied to the roots of the peach and other fruit trees. In the Northern States the cinders of the anthricite coal are applied in a cavity made around the tree at its roots, and it is said that the trees thus treated soon put on a healthy appearance and are comparatively free from insects.

The Plum.—Several varieties of the Plum are said to succeed well in Newberry. I have seen a small kind of Damsan which is dried like the Prune, and is also used for Preserves, bearing very abundantly—the fruit hanging like clusters of grape. The more choice varieties might easily be introduced and would well repay the little labour and expense which such an experiment would cost. There is an immense number of varieties of this fine fruit cultivated in France and Germany which have not yet found their way into our country. It is a tree of a very quick growth and he that plants it, is not obliged to labour for posterity alone. In a year or two the delicious fruit will invite him to a rich repast.

Apricots, Cherries, &c.—A very uncertain fruit in our climate, owing to our early spring frosts, are but sparingly cultivated in Newberry. I observed some Cherry Trees; the Black Morella and several kindred varieties, will undoubtedly succeed well. The Raspberry and Strawberry although much neglected, may be cultivated without much trouble. I am apprehensive that our climate is too warm for the successful cultivation of the Currant or Gooseberry.

CATTLE.

Horses.—These, although not of the superior breeds were, contrary to my expectation, uncommonly excellent, and had nearly all been raised in the neighbourhood. In the large groups collected for several days in succession, I scarcely observed an inferior horse. They were well built, active, and in good order, and adapted to all the wants and comforts of the farmer. I have seen no finer horses in the State, nor am I aware of having seen so good a collection in any part of America.

Horned Cattle.—The Cattle although far superior to those of our lower country, where we are sadly negligent, were still inferior to what they might with moderate attention be rendered. Few efforts have been made to introduce improvad varieties, and until the same attention is bestowed in feeding and rearing cattle that is now devoted to that noble animal, the horse, there will always continue a degeneracy in the important articles of milk, butter, cheese and beef.

Sheep—I was sorry to hear that of late years little attention had been paid in this District to the rearing of sheep. Wool being a considerable item in the manufactory of clothing, efforts should be made to preserve and multiply their flocks. The principal complaint I heard, was, not that the sheep did not thrive, or that the wolf devoured them, but that his blood thirsty half brother the dog, had proved a perfect pestilence to their flocks. This is an evil every where complained of in America, still in our Northern and Western States sheep are preserved in tolerable security. The marauding cur is condemned by a law of custom, if not of the State, to the halter or the rifle ball, and by some watchfulness and a little care in penning the sheep by night, when the mischief is usually done, this evil might, in a great measure, be prevented. Man does not prove himself, what providence intended him—the lord of his lower creation, till he brings all animals under subjection. I doubt whether the wants of our southern country at present would warrant us in making an experiment on the Merino or Saxon breed of sheep. A great improvement might however be made on our present stock, by introducing the common breeds of our Middle States which are in some measure naturalised to our climate, producing wool sufficiently fine for all the purposes of domestic manufacture; in bulk the animals are superior, and equal in flavor to the finer and more costly varieties. I have often been surprised that the shepherd's dog of Europe, the constant and watchful attendant of every flock, had not been more extensively introduced into this country. It is true our fields are enclosed, whilst in the sheep walks of Scotland and on the whole continent of Europe there is scarcely a hedge or fence. Still the shepherd's dog is often actively watching the flock whilst his master is absent. I perceived on the Pyrennes—at the foot of the Alps, and in the lower part of Switzerland, large flocks of sheep who in the absence of the shepherd were only accompanied into the fields in the morning by a pair of dogs, and brought back to their master's hut at night. The wolf it was said kept at a respectable distance, and woe be to the cur that approached near to the flock, for his life was sure to fall a sacrafice to his temerity. It is true the introduction and propagation of this intelligent, almost speaking animal, might require some share of training to be rendered useful, but not more so than the pointer or the hound, which we preserve and instruct for our amusement

The sheep bur, *(Xanthium Strumarium,)* so troublesome in matting the wool, is found in this district, but is less abundant than in the lower country; and the difficulty in eradicating the plant is lessened in consequence of their smaller plantation, and of their sheep being seldom suffered to stray into the woods. It is an annual plant, and were a little care bestowed in cutting it down about the time of blossoming it might easily be destroyed. The plantation may be rendered safe from future injury by this weed, if the seeds are not allowed to ripen for a single year. There are several other seeds, such as the Hemlock beggar tick, *(Bidens Bipinnati,)* the prickly dott burr *(Xanthium Spinosum,)* and several species of bush trefoil, *(Hedysarum,)* that attach themselves to the wool of the sheep They are however, less troublesome, and the plants being all annuals, may be treated in the same manner.

Hogs.—There has been a gradual introduction of some of the varieties now ropagated in the Northern States, and a correspondent improvement in the swine which I saw, although the breeds are much mixed.

The season too has been favorable for acorns, and on the whole the hogs were in good order. The pure Woburn, Berkshire and China breeds have however not been introduced to any extent, nor has the district rendered itself entirely independent of its western neighbours. This might easily be done. It is a district fertile in grain and I was glad to hear few complaints of their hogs being stolen; an evil which in our lower districts is severely felt.

Poultry.—Comparatively few Turkeys were I am informed, raised in the district, the reason of this I did not inquire. Geese and Ducks from a want of numerous water courses, were also rather rare—the former however, feeding on grass can be easier raised on high grounds than the latter, to which, animal food in their young state is essential. Fowls were abundant and cheap, and in very fine order.

Game.—The Deer and wild Turkey have grown scarce in most parts of the district, the result of closely contiguous farms and open woods. Wild Ducks are far less numerous in the Saluda and Broad Rivers than in the more sluggish streams and rice fields of our lower country. The Snipe and Woodcock are rather rare visitors. The Dove is not abundant. The Squirrel I saw only occasionally. Partridges and Rabbits appear quite common. Some wise man has made the remark,—"Hunting is a fine amusement, but a bad trade." The truth of this assertion would be verified by the game in this district.

Mills.—There are saw and grist Mills in various parts of the district; they are however not sufficiently numerous; and I was informed a steam-Mill was about to be erected with superior bolting cloths for the manufacture of superfine flour. At present, owing to the want of suitable Mills their flour is inferior to that prepared in the Middle States, hence some persons still import Northern flour by the way of Columbia. The wheat which I saw was equal in quality to that of the North, and only requires to be properly manufactured to enable the farmers to have the finest flour. I have sometimes been surprised that wind-mills are never resorted to in our Southern country. Our mill dams are proverbially unhealthy, and in certain seasons our streams do not afford a sufficient supply of water, for the purposes of grinding and sawing. The wind-mills now in extensive use in Europe are cheap and simple in their construction and in England with all the advantages of cheap coal, and the improvements of the steam-engine, wind mills are every day becoming more numerous. I have counted more than fifty in sight at one time. In Belgium, Holland, Denmark, and Sweden, they are still more common.

Manufactories.—I am not aware that there are any large manufactories in this district. The spinning wheel is found in nearly every house. I was sorry to see however, that the farmers have not kept up with the improvements of the day in the machinery necessary to the easy and speedy manufacture of cloth. Their spinning wheels and looms are similar to those in use by their sainted great-grandmothers. The fly-shuttle which is now every where used by the farmers in the Middle States, and by which more than double the quantity of cloth can be woven in a day, may be fitted to the common loom at an expense of two dollars. Indeed I have seen this successfully done by a plain negro man who was not a mechanic. The spinning-jenny used by hand is not expensive, and the application of this, as well as the fly-shuttle is so simple, that even a servant can acquire a suitable knowledge of their use in a

week. We have sometimes made sport of our New England brethren, for their ingenuity in introducing into almost every farm-house their wooden clocks (which by the way are both cheap and good,) they have now a field of successful speculation before them, in introducing the hand spinning-jenny and the fly-shuttle, by which they may lay the community under still greater obligations.

Agricultural Societies.—If an Agricultural Society exists in Newberry I was not so fortunate as to hear of it. I was pleased however, to find the Carolina Planter, published at Columbia, read and valued by many persons in the district.

Manures.—I believe the opinion was expressed by Dr. Cooper and Mr. Herbermont, that no marl existed in the region around Columbia, including Newberry. I had long indulged a hope that this might prove otherwise, but I regret to say, that specimens received from Saluda and Broad Rivers, which greatly resembled marle in external appearance, proved on examination to be a mixture of quartz, mica and feldspar, and consequently of no value in an agricultnral point of view. Until farther geological examinations are made, the farmers in that district must be content to increase their manures from those abundant sources which their immediate neighborhoods present. One or two servants, and a wagon employed throughout the year on each farm in hauling leaves, decayed wood, weeds, marsh mud, &c., which thrown into the stables and cow-pens, would greatly contribute to enrich these valuable lands and preserve them from the sterility into which the neighboring regions are fast deteriorating. Lime also sown on the soils of Newberry would I conceive, be of great advantage. I am not aware that any experiments have been made on gypsum. To the Northern and Middle States it has proved more valuable than mines of gold, and I doubt not that this article might be introduced to advantage in this district. One of the great advantages of gypsum (or plaster of Paris,) is, that it produces an abundant growth of grass and vegetables, which being ploughed under produces food for the future crop.

The negroes in this district appeared universally to be well fed and clothed. They were strong and healthy—enjoyed religious and other privileges, and bore favorable testimony to the kindness and humanity of their owners.

A Charlestonian.

For the Southern Cabinet.

THE PEAR TREE.

The Pear tree *(Pyrus Communis,)* grows in its wild state to the height of forty or fifty feet, but its dimensions vary considerably when it is cultivated. We will here only mention the best varieties, and will enumerate them in the order established by the celebrated Noisette in his "Manuel complet du Jardinier."

I.—SUMMER FRUITS.

Amiré-Joannet, Petit Saint Jean, *(Little St. John.)*—Fruit small, of a lemon yellow, ripening at the end of July, tolerably good.

Petit Muscat or Septen-Gueule.—Fruit very small, of a yellow approaching to reddish brown, flesh half melting and musky, very good, and ripening at the end of June.

Muscat Robert, Gros Sain Jean Musqué *(Large Musky St. John.)*—Fruit larger than the preceding, of a yellow, sometimes a little vermillion, tender, sugary, perfumed, good, ripening about the middle of July.

Aurate.—Fruit small, turbinate, *(turbiné, i. e. large above and small below.)*—Yellow and light red, a little musky, half melting, ripening at the end of July.

Bourdon Musqué, Orange d'Eté *(Summer Orange,)*—Fruit small, rounded, of a light and spotted green, with flesh breaking and musky, tolerably good, ripening about the middle of July.

Rousselet Hâtif *(Early Rousselet,)* Perdreau, Poire de Chypre, *(Pear of Cyprus.)*—Fruit very small, yellowish, spotted, with grey on the sunny side, with flesh rather breaking, sugary, perfumed---it ripens about the end of July.

Madeleine, Citron des Carmes.—Fruit medium sized, turbinate, of a light green, perfumed, melting, ripening about the end of July.

Cuisse Madame *(Lady's Thigh.)*—Fruit longish, medium sized, green and ruddy, *(roux,)* half melting, a little musky; ripening at the end of July.

Gros Blanquet, (*Large Blanket,)* Poire d'Argent (silver pear,) Roi Louis (*King Louis.*)—Fruit medium sized, pear shaped, white and carmine, with breaking flesh, sugary and high flavored; it ripens at the end of July.

Bellissime d'Eté, *(Handsomest of Summer,)* Suprême.—Fruit large, calabash shaped, of a pale yellow, with half melting flesh, perfumed, pleasant; in hot summers it ripens at the end of July.

Gros Hâtiveaux *(Chissel.)*—Fruit small, turbinate, yellow and deep red, not delicate, *(peu delicat,)* a little musky; ripening at the end of July.

Petit Blanquet, (*Small Blanket,*) Poire en Perle.—Fruit small, pearl shaped, of a very pale yellow, half breaking, musky; ripening in the beginning of August.

Blanquette a longue queue (*Long tailed Blanqette.*)—Fruit small, pear shaped, white, half breaking, sugary, perfumed; ripening in the beginning of August.

Epargne, Beau present, Grosse Cuisse-Madame, (*Large lady's thigh.*) —Fruit medium sized, very long, green, melting, excellent; ripening in the first half of August.

Poire sans peau, (*Skinless pear,*) Fleurs de guignes.—Fruit medium sized, pear shaped, large in the middle (*ventrue,*) green and yellow, spotted with red, melting, delicate, perfumed; ripening in the beginning of August.

Salviati.—Fruit medium sized, round, yellow, of a bright red on the side towards the sun, half melting, sugary, perfumed; ripening in August.

Orange Musqué or d'Eté, (*Summer Orange.*)—Fruit medium sized, round, with sunk point, yellow, of a light red towards the sun, with breaking and musky flesh, ripening about the middle of August.

Orange Rouge, (*Red Orange*)---Fruit medium sized, turbinate, of a bright red towards the sun; ripening about the 15th of August.

Belle de Bruxelles, Belle d'Aout, (*August Beauty.*)---Fruit large, lengthened, large in the middle, yellow, colored towards the sun, melting, perfumed, very good; ripening towards the middle of August.

Rousselet de Rheims, Petit Rousselet, (*Little Russet.*)---Fruit small, of a deep green, of a brownish red towards the sun, half melting, very perfumed; ripening at the end of August.

Medaille, (*Medal.*)—Fruit medium sized, turbinate, of a yellowish green, half melting, perfumed; sugary, ripening at the end of August.

Bon Chretien d'Eté, Gracioli, (*Summer Bonchretien.*)—Fruit large, oval, of a light green, becoming yellow at maturity, half melting, sugary, very good; ripening at the beginning of September.

Ah! Mon Dieu.—Fruit rather large, of a light yellow, light red towards the sun, half buttery, sugary, perfumed; ripening beginning of September.

Epine d'Eté, (*Summer Thorn,*) Satinvert, musqué, fondante, (*green Satin, musky, melting.*)—Fruit middle sized, pear shaped, lengthened, green, very musky; ripening in the beginning of September.

Bergamotte d'Ete, (*Summer Bergamotte,*) Milan Blanc, (*White Milan,*) de la Beurriere.—Fruit middle sized, turbinate, much enlarged in the middle, (*tes ventru,*) of a pale or yellowish green, melting, very good; ripening about the 10th of September.

Beurré, de Coloma, (*Coloma Butter.*)—Fruit middle sized, lengthened, a little larger in the middle, and spotted with grey, mealy and perfumed flesh; it ripens in the beginning of September.

Orange Tulipée, Poire aux mouches.---Fruit middle sized and brown, streaked with light red, and marbled with grey, with breaking and pleasant flesh; it ripens about the tenth of September.

Gros Rousselet (*Large Russet,*) Roi d'Eté (*King of Summer.*)—Fruit middle sized, pear shaped, of a dirty yellow, dotted, of a brownish red towards the sun, half breaking, perfumed, pleasant; ripening about the middle of September.

Doyenné blanc (*White Doyenné*) Beurré Blanc, (*White Butter,*) Saint Michel.—Fruit large, rounded, yellow, melting, excellent; ripening about the middle of September.

Caillon Rosat.---Fruit large, rounded, yellow, slightly red towards the sun, half melting, sugary, musky; ripening in the beginning of September.

Beurré Gris, (*Grey Butter.*)—Fruit large, shortened oval, green, grey or red, melting, excellent; ripening at the end of September.

Beurré d'Angleterre, (*English Butter,*) Poire d'Angleterre, (*English Pear.*)—Fruit small or middle sized, pear shaped, of a greenish or greyish yellow, more or less spoted, with brownish red, melting, sugary, very good; ripening towards the middle of September.

Grosse Angleterre de Noisette, (*Large English Butter of Noisette.*)---Fruit having much resemblance with preceding, but larger, more grey, and of a better quality; it ripens at the end of September.

Calebasse, (*Calebash.*)---Fruit very large, swelled in the middle, grey, turning yellow when ripe, breaking, pleasant; ripening from the tenth of September to the beginning of October.

Lucné Hative, (*Early Lucné.*)---Fruit middle sized, lengthened, of a pale green, half melting, sugary, tolerably perfumed; ripening at the end of September.

The above is a list of only the Summer Pears, translated literally from the Manuel du gardinier, des Primeurs, (*Manuel of the forcing Gardenier,*) by Messrs. Noisette and Bortard of Paris, (Anno 1832.) The Autumn and Winter Pears will be given hereafter.

THE CUT WORM—FALL PLOUGHING.

Sir,—How almost universal is the notion that the cut-worm feeds upon the grass which is turned down on the sod late in the spring, as a seed bed for the corn crop. Now, I believe he is of a very different disposition, and not likely to prefer old sod to new corn; for if this were so, our friends---even those who are accustomed to delay their ploughing for the purpose of thus feeding them---would not so often be compelled to replant, for the third time, their corn crops, while such abundance of sod still remains in the land, preserved, too, for the especial purpose of saving the crop from destruction: depend upon it, such is not the fact, and I have abundant reason to know that the notion is erroneous.

I am an advocate for autumnal ploughing to the greatest extent, especially as preparatory for the corn crop on lay or old sod land, and I will tell you why. This lay, we will suppose, has been fed by horses and cattle perhaps for several years; and we know that it is from the droppings of cattle that the bugs of every description make their nest, in which to deposite their eggs or nits; and every one must have observed the curious manner, in which the different species carry on this labor, and how, that as soon as they have accumulated a sufficient quantity of dung to form a ball, they sink it to a certain depth into the soil, by undermining it so as to let it drop by its own weight so gently as not to disturb or change the position in which it was carefully placed before the operation of undermining was commenced. Now, I have no doubt this ball or dung has, by some process, been rendered water and weather proof on its top surface, and that, therefore, it is capable of resisting the rain and frost of the winter unharmed, sheltered by such a weather proof, neatly formed and elegantly rounded roof above. But the act of turning the sod before winter, reverses the order of this wise arrangement, and not only exposes these balls to the action of the rains and frosts, but supposing the top of each ball to be water-proof, it then becomes an impervious cup, in which the water might be supposed to be retained, to the destruction of the egg, or whatever the deposit might have been.

Now this *theory* if you please, appears so feasible, that one would suppose it might carry some weight with it on that very account, and yet an old neighbor at my elbow is even now exclaiming, "I tell you I have tried it and it will not do, any how you can fix it; it is all theory, and that you may depend upon." But I tell him I have found it *will do*, if the work be properly done; but all the land must be turned up, for if half of it be left unremoved, it is but reasonable to expect that at least one half the number of nests will furnish myriads of cut-worms to prey upon the corn crop. And my old friend admits that he has not been over particular in his ploughing, considering it, at that season of the year, only a piece of sham work, as he calls it, with the furrow slice about eighteen inches wide, and not always ploughed clean or turned over---a sort of raftering as he terms it---so that, from his own account, it is easy to conceive why *he* has not found autumnal ploughing effectual for the purpose of destroying the cut worm. I am particularly nice about this part of the business, for, after ascertaining the depth to which it is necessary to penetrate, to turn up the dung balls, I am careful to set the plough thereto, and then, by not taking a furrow wider than I can well turn over, and determining not to leave an inch of the land unremoved, I am sure to

succeed in my plan of destroying the eggs of the cut-worm, which is far better than to keep them to feed in spring upon the sod turned down for their benefit.

But what would we say to a gardener who should argue against autumnal cultivation, with the view to supply his vermin with plenty of food in the spring? Farming is gardening in all true principles; and it is a fact, that spade labor in the field would relieve us from nine tenths of the evils that we have at present to encounter, as is well known in those countries where, unfortunately, the price of manual labor is so poorly paid as to warrant its adoption. I know that to many it appears almost paradoxical, how we, in this country and climate, with a set of agricultural implements far superior to those in use in any country under the sun, contrive to do so much of our field labor so ineffectually as we do; and were it not for the notion I have taken up---and which I have reason to believe is just, namely, that all our occupations are performed too hastily---I should myself be quite unable to account for it; and here is the proof: my old friend at my elbow is at this moment boasting of having ploughed two acres and a half a day, "ploughing round and round, with a furrow about a foot and a half wide, with a pair of horses, tickling up their tails," as he expresses it, "in a way it would do you good to look at." Depend upon it, this is the cause; but if we would give our lands *three* times the ploughing, and *four* times the harrowing, rolling and cleaning that they now receive, and all applied with *five* times the care, we should find the benefit resulting therefrom to be *ten* times the value at harvest, as well as our future operation.

Now I know of no one who takes more pains in the after-cultivation of his corn, than my ancient friend above mentioned: he is sure to be the first in all its different workings and counter-workings, its cross-ploughings and cross-hoeings, and it is a "savor of sweet smell," when his neighbors assure him that there is no crop in the country that can compare with his; and yet, strange to say, all his other labors are neglected, his other crops are grown over with weeds, which stare at you over the fence as you walk along, and it is vain to look for his hills of potatoes until the weeds are mown off with the scythe; for he has found that no crop, except corn, will pay for the labor of cleaning! But the fact is, the management of his corn crop has grown into a *propensity*, as Frank says in the dialogues, and *that* he must indulge in, even if it be to the neglect of almost every other duty upon the farm; and to give him time for this, all other operations are hurried and only half performed; indeed, wherever the corn has failed in a hill, you will always see its place occupied by some large weed, which about keeps pace in growth with the corn, having received with it the regular cleaning and cultivation with the hoe harrow; but it is not removed, because there is no time for it! And the weeds around the sides of the said corn, are, in the mean time, permitted to grow and flourish and perfect, and shed their seeds unmolested, because there is no time for their eradication, no not even with the scythe! I often think, while walking over his fields with my old friend, if I were his minister, I would now and then give him a touch from the words, "these ought ye to have done, and not to leave the other undone."

No one can tell the advantage of superior cultivation of the soil, and the benefit to the crop from the total eradication of weeds. The crop is increased thereby, not only in quantity but in quality also. It has

been calculated that a strong weed, growing in a crop of wheat, will draw away a great portion of the nourishment from six plants of the wheat; thus rendering the produce inferior, both in the quality and quantity—a matter of the most serious importance. And Col. Smith has shown by an account published in the Germantown Telegraph of the 12th of August, that merely by the power of superior cultivation, he has this year obtained a crop of most excellent hay, amounting to more than two tons per acre, from land that has had no manure for the last nine years. He states as follows: he has a field belonging to his farm which has not been manured for nine years, and yet it yields, the present season, more than two tons of superior hay per acre. The first six years of the nine was in grass; then corn, then oats, and then grass again. He attributed this unusual success, on a soil only ordinarily good, to the high degree of tillage which it received, and the entire annihilation of weeds.

The lesson to be learnt from this is, one half the quantity of manure might be saved by superior tillage and the eradication of one half the crop—*the weeds—that* being about the proportion to the grain, throughout a great part of the country. But is it a fact that agriculture will not pay for good management? Then the cultivation of the soil is the *only* science that will not pay a premium upon the outlay of skill and capital that may be embarked therein.

But this is the season to plough for the destruction of the cut-worm, and if we would set honestly to the task, there is no doubt it would be accomplished: lands ploughed deep and laid up dry for the winter will be benefited to the extent of a dressing of manure, and can be cultivated much earlier and to greater advantage in the spring: in short, *autumnal ploughing is the soul of good husbandry.* [*Farmers' Cabinet.*

For the Southern Cabinet.

ON THE CULTURE OF CLOVER IN THE SOUTHERN STATES.

North Santee, Nov. 1, 1840.

MR. LEGARE,—

Dear Sir:—For the information of the Southern Planters, I take the liberty of writing a few lines on the subject of Red Clover. My plantation is on the north side of Santee River, within one mile of Vance's ferry; the greater part of it is a strong clay soil, and produces red clover to perfection. I have seen red clover both in Europe and the United States, and mine the last season was as good as any I have ever seen. I am now fully satisfied that on any good clayey soil the red clover will grow as well in South-Carolina as in Kentucky or Europe. The land must be well broken up in the winter by good Mouldboard ploughs, and in February sown down in small grain, oats or rye. Early in March, the clover seed must be sown on the oats or rye, and rolled in, at the rate of one bushel of red clover seed to ten acres; the land must be well pul-

verised by harrowing when the oats are sown. I use a box to sow the clover seed. In the first place, when my oats or rye is sowed and harrowed well to make it fine and smooth, I lay it off with a double plough in lands eight feet wide or water furroughs My seed box is made as follows: it is six feet long, three inches wide, three inches high on each side, and divided into twelve divisions; in the centre of each is a hole 1¼ inch large, having a piece of tin on the bottom to let the seed pass through, punched with small holes large enough for the seed; and a leather strap nailed to each end of the box to put round the sower's neck. With this he can sow thirty acres per day. By giving the box a shake as he walks it will spread the seed to each land and give a beautiful stand of clover. A protecting crop of small grain is necessary for clover in this hot climate. I sow broad cast over the oats and clover. Four bushels of good oak or hickory ashes to the acre. I would prefer lime, if I had it. I expect to sow next spring fifty acres in oats and red clover. I am fully convinced that in all clayey soil, red clover will do well, if pains are taken in preparing the land as above described, and will bring up our worn out fields better than any thing else; will afford good pastures for cattle for three years, and then it ploughed in, will enrich the land for corn and cotton. Clover seed can be bought in the northern cities for from five to six dollars per bushel. I am certain that I will enrich my worn out lands by the red clover system.

I remain, yours, respectfully,

HUGH MCDONALD.

DUTCH DAIRIES.

[CONCLUDED FROM PAGE 657.]

DURING the summer the dairy people must rise at three, and even two in the morning, if the weather be very hot; for which they are indemnified by two hours' sleep, from 1 to 3 o'clock in the afternoon. At 4 they commence milking, which takes place in the field, and generally occupies two hours. At the beginning of the season each girl marks her own cows by tying a particular colored ribbon round their tails, and in some places they adopt the precaution of the milkers carry a string on which they cast a knot as each cow is successively milked, thus securing against one being forgotten. As the fields are large, and often at a great distance, the transport of the milk is facilitated by the very simple contrivance of a long, low, four-wheeled, one-horse wagon, in the side bars of which strong iron hooks are inserted, at such distances that the milk pails containing from thirty to forty quarts each, may swing free of each other, and these, though filled nearly to the brim, are prevented spilling, notwithstanding many a rude jolt over the rough, and often deeply rutted road, by merely having thin pieces of wood, about the size of a dinner plate, floating on the surface; a practice, indeed, universal in these countries, when pails with any liquid are carried even in the hand. The milk when brought to the dairy is immediately strained through a

hair seive into the vessels, whether of wood, earthen-ware, copper tinned, zinc, cast iron, (lined with a china like composition,) or glass, placed in rows on the floor. All these different kinds of utensils have been tried with various success, in the hope of discovering how, in hot weather, more especially when a thunder storm is gathering, the milk can be guarded against a too early acidity; for as it is a fixed and invariable rule that the cream must be removed from the milk before the latter gets at all sour, and an equally established fact, that all the oily particles cannot be obtained in a shorter period than thirty-six hours, vessels in which, during sultry, and especially damp weather, the milk could be kept the due time, are a great desideratum. As yet, however, there reigns much diversity of opinion on the subject, and shallow wooden vessels, as nearly as possible equally wide at top and bottom, containing when full about eight quarts, but in which during summer seldom more than six quarts are poured, are in most general use. The tinned copper milk pans are very costly, and must be carefully watched lest they should require retinning. The zinc are as yet little known, and the assertion of their effect in better severing the cream from the milk, not sufficiently proved. The cast iron, lined with enamel, though assuredly durable and very clean, seem too expensive; and the glass have many opponents on account of their brittleness, and the vague notions respecting glass and electricity inducing the idea, that if the electric fluid get into the milk it cannot get out again! whereas, as it is ascertained that it always attaches itself to a conductor, and, in the absence of any thing more attractive, runs along the surface, it is more likely that the milk should be protected in glass, which is a non-conductor, than in any other substance. In my dairy which contains upwards of one hundred and eighty cows, the glass vessels have been used for four years; and I give them a decided preference over all others. Their form is good, being sixteen inches broad at the top and twelve at the bottom; the glass is dark bottle-green, transparent, and perfectly smooth, about one eighth of an inch thick, and provided with a rounded rim at the upper edge, which makes it easy to retain a safe hold of them even when full. They contain eight quarts, but never receive more than six. They cost 8d. a piece, and their durability may be estimated by the fact, that to encourage carefulness, each dairy maid is allowed one dollar per annum extra, as *pan money*, being bound at the same time to pay 10d. for each one she breaks, yet hitherto no girl has broken to the extent of her dollar. It is self-evident that acidity cannot be communicated to glass, and the ease and rapidity with which they are cleaned, requiring merely to be first washed with lukewarm water, then rinsed in cold water and placed in a rack to dry, effect such a saving in fuel and labor (diminishing the number of our dairy maids by at least 2,) that the less quantity of butter obtained, supposing (which I by no means concede,) that the milk, during a few weeks in summer, does sour sooner, and consequently throws up less cream in glass than in wood, is more than compensated by the lessened expense of the establishment, not to mention the great advantage of attaining the indispensable cleanliness and purity of the vessels, with more certainty, because at a less expenditure of time and trouble. Although it is an ascertained and undeniable fact that the quality of butter depends much on the nature of the pasture, the locality of the dairy, the universally prevailing cleanliness of the whole management, and very essentially on the purity of the water employed, still I ascribe much of the reputation which

our butter has of late years enjoyed (and which is verified by our obtaining at all seasons one penny per pound above the market price in our neighborhood) to the beneficial introduction of glass milk dishes.

It has already been stated as a rule, that the cream must be removed from the milk before any acidity is perceptible, if butter of first rate quality is looked for; and it has been found by experience that a cellar temperature of from 60° to 62° fahrenheit, is the most favorable; a complete disseverment of the cream then taking place in 36 hours: whereas a greater degree of warmth, though it quicken the separation, still more hastens the souring process, which operates injuriously not only on the quality but the quantity of butter. In a cold temperature, the separation is effected much more slowly, so that forty eight or even sixty hours may be required; this, however, is the longest period that may be accorded without incurring the risk of imparting a rank, unpleasant flavour to the butter, which even if not perceptible on its being first churned, manifests itself very shortly afterwards.

The commencement of acidity in milk is indicated by a very slight wrinkling of the cream, and a scarcely perceptible acid taste. So soon as these signs appear, the work of skimming must begin, even though the milk have only stood twenty-four hours; and the cream is poured through a hair sieve (which is kept for this purpose, and must never be used to strain up the new milk with) into large barrels containing about two hundred and forty quarts each (usually sufficient for one churning,) in which it remains till the necessary sourness is attained, which in summer follows in twenty-four hours, in winter seldom under thirty-six or forty-eight hours; unless when the small quantity of milk admits of it being partly strained at once, into the cream barrel, and the remainder added without skimming from the milk pans when cool. This method, undoubtedly, gives at all seasons the greatest return of butter, but as is generally believed, not of so rich a quality as that produced from cream alone; and, moreover, in a large dairy, during the time the cows are in full milk, would occasion much additional trouble, an almost ceaseless churning, and a total prevention from cheese making. The cream having attained its requisite acidity, during the advance to which it must be frequently stirred with a small churn staff to prevent it coagulating, technically called becoming cheesy, the next object of the dairy woman's skill is, the degree of warmth or coolness which must be imparted in order to secure good butter. In warm weather the churn is rinsed with the coldest procurable water, in which a piece of pure ice is often thrown, and sometimes, though more rarely, cold spring water is added to the cream about to be churned, which operation is then always performed either very early in the morning or late in the evening. In cold weather, on the contrary, warm water is applied, both to rinsing the churn and to the cream itself. The churning being completed, the butter is taken off by means of a large wooden ladle, and carried in a tub directly to the butter cellar, where, in a large trough, hollowed out of the trunk of a beech or oak, very smoothly polished off inside, and provided with a plug hole at the lower extremity, (beneath which a small tub is placed to receive the expressed milk,) the butter is slightly worked, and salted with the purest salt, then moulded with the wooden ladle into a mass at the upper end of the trough, and left for some hours to soak and drain. In the evening it is thoroughly kneaded and beat, or rather slapped, the dairy maid repeatedly lifting a piece of from three to four pounds, and slapping it with

force against the trough, so as to beat out all the milky particles; and thus, lump after lump being freed from extraneous matter, the whole mass is spred out, receives its full proportion of salt (in all about 1⅛ oz. per pound,) which is worked with the utmost care equally through it, and again moulded into one compact mass. The butter in Holstein is seldom if ever washed, as water is believed not only to rob it of its richness and flavour, but as being itself susceptible of putrefaction, to be equally inimical as milk to its preservation. When a sufficient quantity is ready to fill a cask, the several churnings are once more kneaded through, a very little fresh salt added and packed into the barrel, which is made of red beech wood, water tight, and previously carefully washed and rubbed inside with salt. Much attention is paid that no interstice shall remain either between the layers of butter or the sides of the cask. A cask is never begun to be filled until it can be completed, as thus alone the butter can be exactly of the same flavor and color, which is probably one reason why small dairies, under whatever management, never produce such good butter as large ones, as the small churnings must remain long exposed to the air, until the requisite quantity is in readiness.

The qualities of first rate butter are considered to be, 1st, a fine, even, yellow color, neither pale nor orange tinted; 2nd, a close, waxy texture, in which extremely minute and perfectly transparent heads of brine are perceptible; but if these drops be either large or in the slightest degree tinged with milk color, it indicates an imperfect working of the butter; while an entirely dry, tallowy appearance, is equally disapproved; 3rd, a fresh, fragrant perfume, and a sweet kernelly taste; 4th, good butter will, above all, be distinguished by keeping for a considerable time, without acquiring an old or rancid flavor. * * * *

The quantity of food which can be afforded to the cows during winter, is ascertained at the beginning of the season, when the harvest returns are known; and in plentiful years the calculation is, that each cow should be allowed three sacks of grain, (generally oats of 140 pounds each sack,) three thousand nine hundred pounds of straw, including bedding, and one thousand eight hundred pounds of good hay; whilst for every hundred pounds of hay less, she must receive twenty-five pounds of grain more, or vice versa.

As during the winter months when cows are confined to dry food, the butter loses its fine yellow color, the defect is sought to be remedied by an admixture of coloring matter; and indeed a high color in butter so much regulates its price in some markets (as in Spain and Portugal,) that the export merchant insists on the desirable shade being imparted when it ceases to be natural. The best ingredients for this purpose are found to be, a mixture of annotta and turmeric, in the proportion of 5 oz. of the latter to 1 lb. of the former.

The average quantity of milk obtained here from good stock, may be estimated at from two thousand to three thousand quarts per annum, according to the food and care bestowed on them; the produce of which has been calculated in the following ratio: every one hundred pounds of milk will give 3¼ pounds of butter, six pounds fresh cheese, fourteen pounds butter-milk, (exclusive of the water added before and after churning,) and 76¾ pounds of whey; and, though the qualities of individual cows, the nature of their pasture or other food, and the atmospheric changes, occasion an almost endless variety of result, still it may be cno-

sidered as a fair average that fifteen quarts of milk are required for a pound of butter; for although from some cows a pound may be obtained from twelve quarts, yet others and even the same cows, at different seasons and with different food, [such as beets or raw potatoes,] will not produce a pound of butter from less than seventeen or eighteen quarts. On the whole, it is esteemed a fair return in these duchies when the average produce of the dairy amounts to 100 lbs. of butter and 150 lbs. of cheese per cow. When calves are fattened for the market, so much butter and cheese cannot be expected—from the generally received opinion that fine veal [and the veal of these countries is very fine,] can only be secured by feeding with milk fresh from the cow; they are usually fed for ten or twelve weeks, and attain the weight of from 120 to 150 lbs. when slaughtered.

CUTTING STRAW.

The cost of production being taken to be equal, the relative value of different vegetable products as food for stock, is tested by the amount of nutriment they contain. This value, however, may be very much varied by the condition and manner in which the food is given to the animal. By common usage, grass is fed both in its green and dry state. When fed green in the United States, the animals are suffered to take it from the ground themselves. But very rarely here, though *often* in England and other Agricultural countries of Europe, it is taken off by the scythe and fed in the stable or yard. When cured it becomes hay, and was ever, universally, fed from the rack or the manger. But careful experiment has proved, to the satisfaction of many, that to cut it up fine into the form of chaff, economises near one third. Below we quote an experiment made in the United States. Cut hay is fed from a manger like grain; none is therefore wasted, as when it is drawn from a rack. Being thus rendered of a more uniform character, coarse and fine is all eaten; so that less is wasted by the animal. Chopping hay facilitates its mastification by cow or horse, this operation being thus in part performed for it. Less time is consumed in eating, therefore there is more for quiet, rest, or work. The *ease* of mastification being increased, it is more perfect, and the food reduced to a better state for digestion. On this operation, much of the health of man and beast depends. When it is imperfectly performed, the animal does not derive the full advantage from his food. Every farmer must have seen frequent instances of the food having passed through his stock almost unchanged. Here must be a loss of food. The advantages, then, resulting from chopping hay, are a saving of material, an increase of nutriment, and an improvement in its healthfulness. Chopped straw, mixed with ground grain, is a common food at certain seasons throughout the North and West. But like advantages result from chopping any kind of fodder, hay, straw, corn-stalks or husks. The common Dutch cutting-box, with one, two or three blades, is the most common instrument used for this purpose. But there are many later inventions, far preferable, saving time and labor. One of

these we have tried and found to answer our expectations very well. We take the following description from the Albany Cultivator.

GREENE'S STRAW CUTTER.

"This is the most simple and efficient machine of the kind that has yet been offered to the public. It is made very strong, and not liable to become injured, nor to get out of order. The apparatus consists principally of two cylinders; the upper one is of iron, having the requisite number of knives secured in groves. The under cylinder is of lead, and can be raised or lowered, so as to have the knives merely to come in contact with it. It will be perceived that the knives perform the double operation of cutting and feeding. All that is necessary in operating, is to put in the straw and turn the crank. After the straw is once cut, it can be put in again and cut with increased rapidity the second time. More than double the quantity can be cut in the same space of time by this than by any other machine, used in this section of the country.

"I set a man at the crank, and with the hay close to the machine commenced feeding. With my utmost exertion, I could not keep it regularly supplied. In *five minutes*, we cut *eleven bushels*, heaping measure, of hay. Had it been fed according to its power of execution, one-fourth more would have been cut. Had I used straw instead of hay, the quantity cut in the above time would have been as great, as it is more easy to supply the machine without interruption. It cuts corn-stalks with rapidity, particularly small ones. The box is made large, and by putting a good deal of hay in at once, or by having it close to the machine, one person can feed it and turn the crank at the same time.

"The above machines may be obtained by applying to C. N. Bement, No. 82, State-street, Alabany. Price $30."

This instrument cuts hay and straw very well, and will cut corn-stalks, but not so well, from the chips or cutting filling up the spaces between the knives, and requiring to be cleaned out frequently. This is not the case in cutting straw or hay. One of these instruments, on trial before the Highland Agricultural Society, managed by one man, cut five hundred pounds in an hour.

We do not recommend Greene's Straw Cutter in preference to any but the common one, for we have had no opportuuity of comparing it with any other. Cut your hay, straw and fodder with the cheapest and best instrument you can obtain—but by all means chop it, and the saving will pay for Greene's Straw Cutter in six months.

CHOPPING HAY.

The following is a statement of BENJAMIN HALE, proprietor of a line of stages running between Boston and Newburyport. It is a correct statement of the saving made by the use of Straw Cutters, in preparing the food for his horses:

	Tons.	cwt.	qrs.	lbs.
"The whole amount of hay purchased from April 1st, to Oct. 1st, 1830, (six months,) and used at the stage stable, was - - - - - - - -	32	4	0	00
"At $25 per ton, (the lowest price at which hay was purchased in 1816,) - - - - -			$800	00
"From Oct. 1st, 1816, to April 1st, 1817, whole amount				

of hay and straw purchased for, and consumed by the same number of horses, viz.:

	Tons.	cwt.	qrs.	lbs.	cost.	Tons.	cwt.	qrs.	lbs.
Straw,	11	13	3	10	$160 22				
Hay,	13	14	1	00	350 00				
					$510 22				
"Deduct on hand, April 1st, 1817, by estimation, 4 tons more than there was Oct. 1st, 1816, at $25 per ton,					$100 00				410 23
"Saving by the use of Straw Cutter, four months of the last six months, or the difference in expense in feeding with cut fodder and that which is uncut, - -									389 77
"Whole amount of hay used for the horses of the Salem stage, 25 in number, from April 1st, to Oct. 1st, 1816, viz.: - - - - - - - -						22	0	0	0
"At thirty dollars per ton, (the lowest price in Salem,)									$660 00
"Whole amount consumed by the same number of horses, from Oct. 1st, 1816, to April 1st, 1817:									
Straw,	15	13	0	0	$187 80				
Hay,	2	15	0	0	81 00				
									268 80
"Saving is using chopped fodder 5 months:					391 26				
"Total saving in using the Straw Cutter nine months, viz.: at Newburyport, 4 months,					389 77				
"At Salem 5 months, - - -					391 20				
Total, - - -					$788 27				

OBSERVATIONS ON STRONG & MOODY'S PATENT RICE MILL.

BY THE EDITOR.

EVERY invention which can facilitate the preparing of the two great staples of the South, for market, must prove of the highest importance, not only to our Planters, but to the community at large; and of almost equal importance must be every improvement (real, not pretended) of those machines which already exist. We have two of the most difficult crops to prepare, which are grown in the world; and their preparation has exercised the mechanical skill of hundreds. To Whitney, the South lies under deep and lasting obligations. His invention of the saw-gin for the getting out of upland or short staple cotton, has not been superceded by any more modern invention.——With gins for sea-island or

long staple cotton, we have not been equally fortunate; and year after year, have we seen gins of new construction, and of old, greatly improved, trumpetted forth as being the very thing desired, and possessing all the qualities requisite to ensure perfect cleansing of the staple without injury to it; but year after year have these passed away and sunk into oblivion, and a good roller-gin is still a desideratum. There is one of Beaths' now under trial, which it is hoped may prove not so ephemeral as those which have preceded it. Of this gin, we know nothing, except what we have laid before our readers. It is, however, to undergo trial, attached to a steam-engine on the plantation of a friend of ours; and we hope, hereafter, to make a report on the manner in which it does its work, whether it be good or otherwise.

With respect to our other great staple, rice, we were most fortunate, many years ago, in having directed to its preparation, the great mechanical skill of the elder Mr. Lucas, who not only invented, but perfected the mill, which now is and has been for so many years used almost exclusively in preparing the paddy for market. Many have been the alterations, and new inventions brought forward, to supercede either in whole or in part, this beautiful combination of machinery, which as a whole, is perhaps the most perfect which has ever been introduced for similar purposes. Nearly every alteration, or proposed improvement, has, after comparatively short trials, been abandoned, and the rice-mill as invented and erected by Mr. Lucas, is now in almost the exact state in which he left it. Within the few last years, however, a mill for cleaning rice on an entirely different principle, has been brought into use. In Lucas' mills, the rice, after having been partially ground, has the chaff removed from the grains by means of large pestles and mortars, the former put in motion by the machine. The rice, after having gone through this process, is directed by small tin buckets attached to an endless band, to the upper stories, where it undergoes the processes necessary to free it from the chaff and flour, by which time it again reaches the first floor, and is received into barrels, and at the same time packed for market.

Strong & Moody's Patent Rice-mill, of which it is our purpose to give some account, (the other, Lucas', being well known throughout the whole rice districts,) differs principally from the one to which we have alluded, in the mode of freeing the rice from the hull or chaff. The Lucas' mill, as we have already said, performs this by means of pestles; the patent mill, by means of large wire teeth, similar to those used for cards, and fixed on the face of sections of wooden cylinders, which work precisely in the same manner as the mill-stones of a flour mill. One of these mills was erected in this city in 1835, and has been in operation a part of every year until the two last, when afflictions in the family of the acting proprietor prevented his being in the city. In the early part of its operations, (being among the first erected under this patent,) it encountered many difficulties from imperfect machinery, but these were all disconnected with the patent mill, which has never given any trouble, being in all respects as simple, and as easily wrought as a common set of mill-stones;—these difficulties have been entirely overcome.

The following advantages this mill is said to possess over all other modes of cleaning rice, viz.: "This mill being in form like a mill-stone, is put up and wrought as mill-stones are, only they do not require to be

taken up to do any thing to the face as mill-stones do. One face has been found to clean upwards of one thousand bushels of rice. When the face requires to be renewed, it can be done for sixty dollars, when the mill will be as good as new. It has been found on trial to clean in the same time, with the same power, one-third more rice than the pestle. This mill takes out the eye of the grain of rice in a very perfect manner, and passes it through the mill so quickly that the eye is not filled up with flour. It can be so set, as to clean the rice just as you wish; and when thus set it will clean the rice equally. It puts *a heat* on the rice in the process of cleaning, which completely dries the flour, so that it can be removed from the grain by the brush in a very perfect manner, and at the same time hardens the rice nearly equal to kiln-drying it, so completely removing the flour that it not only shows the true colour of the rice, but with the heat makes the rice keep, (for it has been kept in a good state for years in this city.) In cleaning rice, in which there is much red, it cleans very perfectly, and about in the same time as it does other rice. In cleaning rice, it does not break it so much as the pestle, and there is less grit in the rice cleaned by it. It puts a polish on the rice, which it would be difficult to do in cleaning it in any other way."

A great prejudice, however, has existed in our market against rice prepared by these mills, owing to the rice having a blueish color instead of the white which we have been in the habit of seeing. This was supposed at first, and is even now by many, to be imparted to the rice by the metallic teeth which separates the chaff from the grain. This, however, does not appear to be the case, but owing actually to its being more thoroughly freed from all flour or extraneous matter. In reply to some queries we addressed to the acting proprietor, (to whom we are indebted for much of the information we possess relative to this mill, which we have also examined and seen in operation,) he observes, "Since the mill has been improved some years since, the prejudice in relation to the blue colour has been gradually giving way. Early in 1836, a parcel of rice, in which there was much red rice, was submitted to a chemical test, under the direction of Caullier & Harper, to ascertain if any extraneous matter was imparted to the rice by being cleaned by said mill. After careful analyzation, they gave their certificate, that there was no extraneous matter imparted to said rice. This may be proved by any one who will examine the rice cleaned by said mill. If they will break the grain, they will find the colour of the rice *within*, the same as that without. Any other colour must be given by imparting to the grain some extraneous matter which ought not to be there. That no such objection has been made by those who have used and shipped said rice, is evidenced by the following certificates:

"'*Boston, March 14th*, 1835.—We, the subscribers, having purchased rice cleaned at the South-Boston mill, (which is the Patent mill,) say, that we were fully satisfied that it was more perfectly cleaned, and less broken, than the Corolina cleaned; and that we never discovered any insect in it, and that it would be a great convenience to us, and benefit to the consumers, to have the said mill continued in operation.' (Signed by ten of the most respectable grocers of Boston.)

"The following is from sundry respectable ship-owners, who shipped rice cleaned by the said mill, viz.:

"'*Boston, March 14th*, 1835.—We, the subscribers, having purchased rice for exportation which was cleaned at the South-Boston Rice-mill, do

say, that we were fully satisfied therewith; that it has more clean and less broken grain, than the Carolina cleaned rice; that it also kept better, and free from insects during the voyage.' (Signed by four Houses of Boston.")

To these might be added certificates as to its excellent keeping qualities, from persons residing in this city. We have also been shown the following extract of a letter from a gentleman, with whom we have the pleasure of a personal acquaintance, and in whose judgment we have great confidence, detailing some experiments which he has made with a mill of this construction. The letter not being intended for publication, we are not authorized to give the name.—

"Early in the fall, I devoted two or three weeks to your polisher, and during that time cleaned fifty tierces with it. The objects I had in view in these experiments, were to clean the rice as perfectly as possible; and having arrived at the best performance to ascertain the maximum quantity which could be obtained of that quality, the questions of the comparative amount of broken and small rice, and rice-flour, were reserved for subsequent experiments.

"As regards the *quality* of the polished rice when compared with that prepared by the pestle, I arrived at the conclusions,

"1st. That the polisher cleaned the rice more effectively than the pestle, which is owing to the rapid execution under a high temperature, preventing the *sweating* of the grain, and consequent adherence of the flour to it.

"2nd. That the rice was raised to so high a temperature, and was so free from flour that it must necessarily keep better than that from the pestle.

"3rd. That fifteen barrels in twenty-four hours might be prepared in the best manner to each polisher.

"4th. That the same power applied to the polisher, will prepare one-third more rice than by the pestles.

"5th. That the dingy blue colour is principally, if not entirely, occasioned by the complete removal of the flour.

"5th. That the defect of the machine is, in leaving the chalky and immature grains unpulverized. This is, I think, an inherent defect; and one which must affect its value, as it will be extremely difficult to separate them from the flinty grains—and their existence, even to a small amount, injures the appearance and sale of the rice. To obviate this defect, I put up a *middling-rice* rolling screen, in the hope that the chalky and immature grains might be separated from the full ones. This succeeded partially, but not entirely. In preparing rice of the best quality, this objection is not very great; in inferior rice it is, although the greater yield of whole rice is some compensation. This strikes me as the most serious defect of the machine. The dingy colour of the rice forms at present another objection; but as this is founded on prejudice, time will remove it. I believe the polisher will produce a larger proportion of whole, and a smaller one of small-rice and rice-flour than the pestle; but this point I did not test accurately."

We understand that other experiments are in progress, which when satisfactorily completed, we hope to be favoured with.

With respect to the blue or dingy appearance of the rice, we ourselves can bear witness to its not existing when the rice is cooked, as we have made use of it prepared at this mill, and could not distinguish it from

rice prepared by the usual process, and such is the opininion of many others.

We have devoted a larger share of our number to this article than we at first intended, as the subject is necessarily of interest but to a portion of our readers; yet as every improvement in the construction of machinery which facilitates the preparation of our staple articles for market, ought to be known to the community at large, we hope we shall not, on the whole, be considered as having bestowed undue attention to this. Eighteen of these mills have been set in operation since the establishment of the first in South-Boston in 1834, and eight have been sent, (by orders,) to Great Britain. Sundry others are under way to be erected in various other places.

TO FORWARD VEGETABLES.

If you wish to produce early vegetables, before the usual time,—as, for instance, cucumbers, melons, &c., take a few large potatoes or common sized turnips and scoop out the inside with a knife or spoon, and fill the cavity with rich earth. In this deposit a few seeds, and place the potatoes in some warm situation in the house. They will soon sprout and grow. By the time the season is advanced beyond the danger of frost, the potatoes, previous care being taken to dig out the eyes, may be set out in the open ground. The plants will continue to grow without disturbance, and the potatoes will soon rot and afford nutriment for the plants. We have tried this method often, with success. The only danger is, that if the plants stand long in the house after they are up, and are placed in a situation where it is considerably darker than it is out of doors, the stems will run up too tall and cause danger to them from the winds after they are transplanted. To avoid this, it is well to place them on the window-stool, where it is very light, and turn them occasionally to prevent their acquiring the habit of looking too wishfully out doors. When set out, the earth may be drawn about the stem quite high up without injury.

Hand glasses are an excellent thing in the garden to forward and protect early vegetables. A shallow box, higher on the backside than the front, that is large enough to be covered by two panes of glass, will answer a very good purpose. A joiner will make you a dozen for a dollar or two. These should be placed over the hill facing the south—so that the sun may have the best command of them. Seeds planted in these will soon come up, and the covering will protect them from frost. In warm days the glass should be removed to give the plants the benefit of air. They should, too, be watered seasonably. There is another advantage in these hand glasses—especially for cucumbers, melons and squashes. They will be so forward and attain such a size, that by the time you are safe in taking up the boxes, the plants will be out of the way of the yellow bugs and other insects. In this way you will insure a crop. They are also important to insure a ripened crop of late sorts of melons and winter squashes. By means of the boxes nearly a month may be gained in the length of the season, which will put them out of the way of the frost of autumn.

BEANS.

The prettiest way for a man who cultivates but little land, to raise his own dry beans for next winter's use, is—not to plant the bush kinds by themselves, for this will require too much land, as the product is small,—but to raise white *pole* beans. The common case knife beans are excellent for this purpose. Strike out a dozen circles on the ground as large as a cart wheel. Put a wheelbarrow load of manure into it, and spade it up with the earth. Drop the seeds in the circle, on the outer edge of the hill, say six inches apart. Then insert eight or ten poles just within the circle, at equal distances from each other, and tie the tops of the whole together—forming a cone. Cover up the seed and wait the result.—Each of these hills will yield you a peck or half a bushel of dry beans next fall,—which if you have but a dozen such hills will give you perhaps half a dozen bushels. This will be enough for your purpose. By this course but a little land is occupied. Pole beans yield very much more abundantly than bush beans, and occupy air whilst the latter must have the surface of the earth. If you wish to produce your own dry beans, reader try this system the present season.

A NEW DESCRIPTIVE CATALOGUE OF ROSES.

BY T. RIVERS & SON.

We insert the following extract from the above catalogue, with a view to show the arrangement of Roses, as well as to furnish some valuable remarks on the culture of the several divisions. Messrs. Rivers & Son have recently published a more extensive Work on Roses, from which we expect to make copious extracts in our forthcoming numbers.

[Ed. So. Cab.

Moss Roses, 17 sorts.—"Most of the varieties prefer a cool soil, though Mossy de Meaux is, perhaps, an exception, as it seems to flourish better in light dry soils. The White moss, unless budded on the dog rose (Rósa canìna) will not, in general, grow well; its sickly appearance in some situations may be often traced to its being worked on some improper stock. If on its own roots, in rich soils, it will often change to pale blush. All are well adapted for standards; but, to have them in perfection in warm dry situations, in March put round each stem, on the surface of the soil, the fourth of a barrowful of manure; on this place flints or moss, to take off its unsightly appearance, and make a little ornamental mound. This treatment will keep the soil cool, and make them bloom in a most superior manner, even in situations previously thought to be most ungenial to their culture. The manure should be spread on the surface in November, and lightly forked in."

Perpetual Roses, 29 sorts.—"These, with the exception of Perpetual Scotch, Stanwell, perpetual, and Pompone four seasons, are all varieties of Ròsa damascèna, or the Damask rose. They are, perhaps, the most desirable of all the pleasing families of Ròsa. Like their prototype, they are highly fragrant, and, if possible, more so in September, October and November, than in June. As every shoot in most of the varieties produces bloom, the soil cannot be too rich; for, with these luxurian growth will be sure to give abundence of flowers. A good practice would be to cut off all the bloom-buds in June, and shorten the

shoots to about half their length; then water them with manured water in July and August; this will make them shoot and bloom most luxuriantly all the autumn."

Hybrid Roses, 66 sorts.—"The varieties of this distinct family are principally between the China rose (Rósa índica) and Rósa gállica.—They are all very beautiful and distinct, and have that pleasing, glossy, sub-evergreen foliage, peculiar to the China rose; but make a great viation from that family, in not being perpetual bloomers. In this division are some of the most beautiful roses known; and among them George the Fourth, raised from seed by T. Rivers, jun., may rank among the best. These are also all very robust, and will grow and bloom well in the most unfavourable rose soils. Their peculiar habit and vivid colours render them particularly well adapted for standards."

Select Roses, 70 sorts.—"In this division are many varieties of Rósa gállica, and also many hybrids between *R.* gállica and *R.* centifólia, &c. &c. The varieties selected are all fine and distinct, and will be found well worth cultivation."

Varieties of Rósa álba, 9 sorts.

Provence Roses, 16 sorts.—"The Provence rose is the Rósa centifólia of botanists, the Cabbage rose of the English gardens, and the *Rosa à cent feuilles* of the French. All its varieties are extremely fragrant, and some very beautiful. The Provence Rose of the French catalogues is our Rósa gállica."

Noisette Roses, 44 sorts.—"This division, with the Perpetual roses, will ultimately be the ornament of every British garden: the astonishing multiplicity and constant succession of flowers (till the chills of November prevent the opening of the buds) make them highly interesting. They are all very hardy, and, as standards, seem to show their varied characters with better effect than as dwarfs. Those kinds are indicated which, from the length and flexibility of their shoots, are adapted for rose pillars."

Climbing Roses, 42 sort.—"A decided and rational objection has been made to tall standard roses; but, with the aid of this graceful division, they can be formed into objects of high artificial beauty. We will suppose a tall tree rose, with a fine head of Crimson perpetual, or George the Fourth Roses, in full bloom, its stem covered with the pure white blossoms Rósa sempervírens plèno, or some of its beautiful varieties, such as Princess Louise, Félicité perpétuelle, &c. &c.: to the lover of roses, this hint will convey the *beau idéal* of all that is beautiful in their culture."

Tea-scented Roses, 37 sorts.—"The greater part of these are new to the English cultivator: all have that peculiar fragrance which the French have taught us to call tea-scented. Unless on very warm and favourable soils, these as dwarfs, require careful cultivation, and must have a raised border against a south, south-east, or west wall. This border should be a compost of rotten manure of leaves, light loam, and sand, equal parts, and raised about eighteen inches above the surface. When grown as low standards, they are surpassingly beautiful: but they should be taken up in November, and their roots laid in mould, in a shed, as our sharp winters would injure them, so as to prevent their blooming in perfection, if left exposed."

China Roses, 49 sorts.—"From six to eight months in the year, the roses in this division form bright ornaments to our gardens. Many of the

robust varieties make beautiful standards. They are all perfectly hardy. The sorts first in the list are quite new and very beautiful."

L'Isle de Bourbon Roses, 11 sorts.—"This is a most beautiful family, scarcely known in this country. They seem to form a distinct division of China roses; like them, they are perpetual; but they have a luxuriance and gracefulness quite their own: the perfect and elegant form of their flowers, the extremely delicate tints in some, and vivid rose colour, so peculiar to these varieties, in others, will soon establish them in the favour of the rose amateur. As standars, they grow most luxuriantly, are quite hardy, and bloom in greater perfection late in autumn than any other Perpetual rose."

Musk Roses, 7 sorts.—"These are interesting from their powerful fragrance and autumnal flowering The Old white is one of the oldest inhabitants of the English gardens."

Scotch Roses, 22 sorts.—"These are all emanations from the Rosa spinosíssima, or Wild Rose of Scotland; and the above selection gives a representative of each shade of colour. Out of a collection of two hundred nominal varieties from Scotland and elsewhere, twenty-two are all that can be recommended as tolerably distinct. These form so gay an assemblage among May flowers, that a clump or border ought to be devoted to them in every flower-garden. The shape of the flower in these is peculiar and similar, being nearly globular."

Miscellaneous Roses, 72 sorts, which are not described.

General Remarks on the culture of Roses.—Referring to the directions for rose culture given in their Catalogue for last year, and quoted in IX. 458., Messrs. Rivers observe, that they "still think that, in unfavourable soils, roses require being removed, and their roots trimmed, every third or fourth year. In cold clayey soils, the best compost for them is rotten dung and pit sand; in warm dry soils, cool loam and rotten dung. Annual pruning, which is quite essential, should always be done in October or in March; but October pruning will be found greatly advantageous, as the rose will then prepare itself during the remainder of the autumn for vigorous growth in spring. The families of roses are now so well defined, that each ought to have its department: a clump of hybrids for their gorgeous colours in June and July; of perpetuals, for their fragrance in the cool autumnal months: of Noisettes, for their elegance and abundance of flowers; and of Scotch roses, for their precocity and humble growth. In short, all the thirteen families above enumerated require separate culture to have them in perfection; but this, of course, will only apply to rather extensive flower gardens. Climbing roses for pillars, should be planted in a very rich soil, as they will then put forth strong central branches, of 8 feet or 10 feet in length; these, when fastened to the stakes, will furnish a plentiful supply of lateral blooming shoots for many seasons. The application of climbing roses to cover a sloping bank, their flexible branches being pegged to the ground, is, perhaps, a new idea. Thus treated, they will form a beautiful carpet of foliage and flowers; the dark crimson and white varieties blending with peculiar elegance. The majority of roses bloom much finer when budded on the dog rose, than under any other mode or culture. The great objection is, their throwing up suckers so quickly as to impoverish the budded part of the plant. To remove these as soon as they appear, the gardener must be continually on the alert."

BULBOUS PLANTS.

Bulbous rooted flowers differ from others in requiring that they should be frequently taken up and replanted. The reasons are, that in deeply pulverised rich grounds most sorts multiply so fast that the bulbs become crowded, small, and unfit to send up strong flowers. Tulips, bulbous irises, &c. form their new bulbs under the old one, so that their bulbs become at last so deep that they come up weakly and afterwards cease to appear at all. Others, such as crocus, gladiolus, &c. form their new bulbs over the old ones, and force them above the surface, and are frequently killed by the frost and drought. Hence, bulbs should be taken up every year, and border bulbs at least every three years. This should be done when the plant has flowered and the leaves begin to decay, but never for any purpose when the leaves are green. Bulbous rooted flowers are propagated by off-sets or by seed; indeed the whole, with the exception of the cyclamen and a few others, by off-sets, which are to be taken off the plants as soon as they are done flowering, unless in the case of Autumn-flowering bulbs, and then not till the beginning of the following summer. The off-sets, when separated from the flower, should be planted in a nursery-bed, and the soil where the plants were renewed according to its kind, and the parent bulbs replaced in about six weeks, in order to establish themselves. Whenever strong blown bulbs is the object, the off-sets should never be allowed to attain any size; but as soon as they show leaves above the surface, they should be removed. By this means, the main plant is much strengthened, both for flowering and invigorating the bulb for the next year. Some bulbs are eagerly sought after by vermin, as the crocus and tulip by the mouse and water-rat; the snow-drop and narcisuss by the snail and slug; and hyacinths, by a particular sort of grub-worm. The snail is the worst of these vermin, though it may be most effectually kept under by scattering leaves of the brassica tribe over the ground, and picking from them every morning the snails that have fixed on them during the night, or by watering late in the evening with lime water. *To propagate such as rarely produce off-sets* applies to tunicate bulbs, which, if cut over transversely a little above the middle, will form young bulbs in abundance near the margin of the outer coat. This has been successfully practised with hæmanthus pubesceus, and several of the more rare ornithogala, &c. The art in cultivating bulbs is to attend to the proper time for putting them in a state of rest, and, when in a growing state, to place them so near the light, with so good a supply of air and water as will enable them to bring their leaves to perfection. These points cannot be too strongly insisted upon. Bulbous rooted plants associate almost as ill with all others as succulents do; and, therefore, wherever a good collection is kept, there should be a house entirely devoted to their culture.

TALES, SKETCHES, &C.

RUDOLPH OF WERDENBERG; OR, THE FREEDOM FIGHT OF APPENZELL!

AN HISTORICAL TALE.

BY HENRY F. HARRINGTON.

[CONCLUDED FROM PAGE 691.]

THE word—flying among the mountains, that fiercer foemen than ever the Abbot of St. Gall and the ten imperial towns—the troops of Frederic of Austria, led by his bravest and best skilled generals—yes, accompanied and cheered by the Duke in person, were on their march for Appenzell, summoned the anxious yet undismayed peasants to consultation upon their safety. They gathered in the Town Hall at Arbon, with stern and lowering brows: such as men of lofty purpose are wont to wear, when wives, children, and homes are the stake of victory or defeat. They met, knowing that the utmost force they could muster would be but a handful against the thousands of the enemy, and that not a drop of blood must be poured from their own veins, that would not moisten the earth about the tender shoot of liberty, and lend it sweet support.

They had scarcely organized; when suddenly Rudolph of Werdenberg, full armed, came into their midst—a noble, one of the proud and haughty class, whose voices and swords were, as yet, without an exception on the side of their oppressors; and to any one of whom they would have deemed it madness to apply in the hope of sympathy and succour. They started, and gazed upon him, some ready to rush upon him, in the thought that he was leagued with their foemen, who had hemmed them round about, and that he had come to bid them surrender or perish—others, in mute amaze. He spoke:—

"Men of Appenzell," he said—these are the self same words which faithful history records the noble-hearted Rudolph to have spoken—"The Duke's army is again in motion, and even now, perhaps, violates our sacred frontier, driving the car of destruction over our hearths, and the brands of desolation into our dwellings. Ye all know me, who and whence I am; now learn, also, wherefore I thus abruptly intrude on your deliberations. The sacred ground of Werdenberg, transmitted to me through a long line of ancestors, whose piety and personal valour were still nobler monuments than their possessions, has been seized by Austrian rapacity, the instruments of whose robbery. are now rioting in the hall of my fathers! Stript of my inheritance, I have nothing left but the sword of Wertenberg, and my incorruptible faith; these I offer you, with a heart warm in your cause, and an arm prepared to second you in every enterprise. Will you receive me as a free fellow-citizen?"

One glance at the high earnestness of his look, had been an assurance of his faith to very strangers; but these knew him well, and knew that the word of Rudolph had never been broken.

"We will!" "We will!" cried all, in one glad, echoing shout, on which Rudolph threw down his casque, stripped himself of his armour, and the insignia of his nobility, and arraying himself in the humble dress of a mountain shepherd, exclaimed—

"Now I am free indeed! and wearing the garb of freemen, henceforth I will wield only the sword of freedom, and live or die in its cause!"

A second stunning acclaim greeted this glorious avowal. On the spot he was elected their general, and to him was committed the conduct of the war. Linda had been sent into the fastness of the interior, under the escort of the horsemen, and he devoted himself at once to the great work. Fortifications were thrown up along the frontier; troops were enrolled and banded, a fresh league was entered into with St. Gall, and all was ready for the invaders. Hope was high—high as unfaltering resolve, for Rudolph of Werdenberg, was their general, and their war-cry was "Freedom and Appenzell!"

The freedom-fight approached. One body of the Austrians crossed the boundary on a drizzly day in June, and began the ascent of the Anden-stoss. They made slow and laborious progress, for the grass was short, and the path was rendered slippery by the rain. The remembrance of the most dreadful arms of the shepherd warriors in days gone by—days of victory to the untrained men of the mountains—the trees that grew upon, and the rocks that formed part of the overtopping crags—was also upon their souls, and imparted a silence of strange fear, as they slowly mounted the step; those war-trained men, who, on the open plain were brave to the last in victory or defeat. But here was untried, unknown action: here were foes, who could fight as well on the mountain-side as in the open plain, and who came too, with a burst like the thunder-stroke!

So was it now; once well upon the steep, and down came huge masses of rock, and logs of timber into their midst, crushing in horrid destruction, and inspiring the terror, which danger so appalling, so unavoidable by any effort—unseen, uncertain as it was—could not save but create. Yet the troops marched on, over the bodies of the slain. But when they had attained half the ascent, Rudolph gave the signal to charge. "Freedom and Appenzell!" shouted four hundred voices, and with the shout, the Appenzellers rushed forth, barefooted—for so they could tread firmly the slippery ground—and fell upon the disordered ranks. Rudolph—barefooted too, and with manly voice and vigorons action, when the fight was thickest—urged his followers on! The Austrians threw aside their bows, for the rain had relaxed and rendered the strings useless, and, with sword and spear fought bravely to maintain their ground. They were mowed down in dreadful havoc; but their numbers were constantly increased, and the places of those who fell were immediately supplied by thousands in the rear. Thus they were but kept at bay, and yielded not an inch. But Rudolph of Werdenberg had planned the fight; and now at the critical moment, a fresh body of Appenzellers, unseen as yet, came rushing from the wood, and made as if to fall upon the enemy's rear and cut off its retreat. Then the terror was complete—then the panic-struck Austrians turned, every man for himself, and fled adown the steep. For six hours they were pursued along the Rhienthal, like a

frightened herd, and when they were left to rally at last, their bravest were not of them—for they were sleeping on bloody pillows on the steeps of the An-den-stoss and along the reeking valley!

Thus for one body of the vaunting foe! The sky is clearer for Appenzell!

—

In the mean time, the other division of the Austrians, with whom was the Duke in person, spread desolation through all the country as it advanced, ravaging and burning, and surrounded, in their martial and imposing array, the ramparts of St. Gall. The town, however, was too well manned and fortified to be taken without a longer siege, and a severer struggle than the Duke cared to waste upon it; so his intention was changed, and he proceeded in his anticipated triumph of vengeance towards Arbon. But its inhabitants, formed into numerous bands, fell upon his advanced guard on every side, with that earnestness which characterised every effort of the mountaineers, and so routed them, that the main body itself hesitated to advance. Just now, too, word came to the Duke of the destruction on the An-den-stoss; and, boiling under these repeated checks and losses, the more galling, because inflicted by those too contemptible to be feared by such as he, whose fields he had thought to lay waste, whose villages to burn, and whose troops to slay, without a pause in progress, he took, there by the Hauptlisberg, where his advanced guard had been checked, a solemn oath never to leave the land until he had purchased great and glutting revenge for the stain upon the proud banner of Austria! Then and there too, he framed a plan of operations, so cunning, that success would be certain. The command was given to retreat, and the whole forces seemed thereupon to be in full march for the Tyrol. On they went, as if in the precipitation of disappointment and fear towards the Rhine; when the village of Shal being reached, a halt was made, the ranks were set in array, and in the confidence of triumphant generalship, were ordered to mount the steep declivities of the Wolfshaden! Will they reach the top? Where is Rudolph—where the Appenzellers? Are they deceived, and are rejoicing afar off over fancied victory? Higher go the Austrians—is there not one sword to slay them?

"Freedom and Appenzell! Freedom and Appenzell?" They are there, all ready! and again, as on the Stoss, with that glorious victory to spur them into bolder action, they fall upon the foe! What need of words? The reader's eye kindles, for he knows ere I tell it, that before the dews of nightfall, the maddened Duke, alas, for his solemn oath! was flying towards the Rhine, all with shattered and broken-hearted forces, and the moon looked down on the Wolfshalde, and her cold rays fell on the lifeless heaps of fighting men—who never would fight more.—The sky is all bright for Appenzell!

—

Rudolph of Werdenberg is in the hall of his fathers; Linda is by his side, and the tables groan again!—But they who sit beside them, are not the fifty knights, but the shepherds of Appenzell. "Bring forth the prisoner!" he cries, and behold! Grindel of Mayenfield, bound with clanking chains, is led into the midst.

"Hail, Sir Grindel," cries Rudolph; 'tis a season since I saw thee, and strange things have happened since I left thee in this self same hall. I told thee I went to see the Lady Linda fitly arrayed for thy greeting.—

I pray thee pardon me that I have tarried so long, and believe, that I have been well at work. Yet now I bring her, and thou canst greet her, Grindel of Mayenfield! Knock off his chains! Thou art free and forgiven; thou shalt have safe conduct to the Tyrol; and will have to tell, beside other tales of the men of Appenzell, how thou likest the Lady Linda of Werdenberg! Thou needest not bear the message I gave thee to Frederic of Austria, for I have told him a story myself, and I warrant me he will not soon forget it! Farewell!"

So out went Grindel of Mayenfeld, less proudly than with his fifty knights and five hundred followers, he had before come in.

CHARLES O'MALLEY, THE IRISH DRAGOON.

BY HARRY LORREQUER.

PASSAGE OF THE DOURO.

Never did the morning break more beautifully than on the 12th of May, 1809. Huge masses of fog-like vapour had succeeded to the starry cloudless night, but, one by one, the moved onward towards the sea, disclosing as they passed, long tracts of lovely country, bathed in a rich golden glow. The broad Douro, with its transperent current, shone out like a bright coloured ribbon, meandering through the deep garment of green; the darkly shadowed mountains, which closed the back ground, loomed even larger than they were; while their summits were tipped with the yellow glory of the morning. The air was calm and still, and the very smoke that arose from the peasant's cot, laboured as it ascended through the perfumed air, and, save the ripple of the stream, all was silent as the grave.

The squadrons of the 14th, with which I was, had diverged from the road beside the river, and to obtain a shorter path, had entered the skirts of a dark pine wood; our pace was a sharp one; and orderly had been already dispatched to hasten our arrival, and we pressed on at a brisk trot. In less than an hour we reached the verge of the wood, and as we rode out upon the plain what a spectacle met our eyes. Before us in a narrow valley, separated from the river by a narrow ridge, were picketed three cavalry regiments; their noisless gestures and perfect stillness bespeaking, at once, that they were intended for a surprise party. Farther down the stream, and upon the opposite side, rose the massive towers and tall spires of Oporto, displaying from their summits the broad ensign of France; while, far as the eye could reach, the broad dark masses of troops might be seen; the intervals between their columns glittering with the bright equipments of their cavalry, whose steel caps and lances were sparkling in the sunbeams. The bivouac fires were still smouldering, and marking where some part of the army had passed the night; for, early as it was, it was evident that their position had been changed; and, even now, the heavy masses of dark infantry might be seen moving from place to place, while the long line of the road to Valonga was marked with a vast cloud of dust. The French drum and the light in-

fantry bugle told, from time to time, that orders were passing among the troops; while the glittering uniform of a staff officer, as he galloped from the town, bespoke the note of preparation.

"Dismount. Steady: quietly my lads," said the Colonel, as he alighted upon the grass. "Let the men have their breakfast."

The little amphitheatre we occupied, hid us entirely from all observation on the part of the enemy, but equally so excluded us from perceiving their movements. It may readily be supposed then, with what impatience we waited here, while the din and clangour of the French force, as they marched and countermarched so near us, were clearly audible! The orders were however, strict, that none should approach the bank of the river, and we lay anxiously awaiting the moment when this inactivity should cease. More than one orderly had arrived among us, bearing despatches from head-quarters; but where our main body was, or what the nature of the orders, no one could guess. As for me, my excitement was at its height, and I could not speak for the very tension of my nerves. The officers stood in little groups of two and three, whispering anxiously together; but all I could collect was, that Soult had already began his retreat upon Amarante, and that, with the broad stream of the Douro between us, he defied our pursuit,

"Well, Charley," said Power, laying his arm upon my shoulder, "the French have given us the clip this time: they are already in march, and, even if we dared force a passage, in the face of such an enemy, it seems there is not a boat to be found. I have just seen Hammersley."

"Indeed! Where is he?" said I.

"He's gone back to Villa de Conde; he asked after you most particularly; don't blush man; I'd rather back your chance than his, notwithstanding the long letter that Lucy sends him. Poor fellow! he has been badly wounded, but, it seems, declines going back to England."

"Captain Power," said an orderly touching his cap, "General Murray desires to see you."

Power hastened away, but returned in a few moments.

"I say, Charley, there's something in the wind here. I have just been ordered to try where the stream is fordable. I've mentioned your name to the General, and I think you'll be sent for soon. Good bye."

I buckled on my sword, and looking to my girths, stood watching the groups around me; when, suddenly, a dragoon pulled his horse short up, and asked a man near me if Mr. O'Malley was there?

"Yes; I am he."

"Orders from General Murray, sir," said the man, and rode off at a canter.

I opened and saw that the dispatch was addressed to Sir Arthur Wellesley, with the mere words, "with haste," on the envelope.

Now which way to turn I knew not; so springing into the saddle, I galloped to where Colonel Merivale was standing talking to the colonel of a heavy dragoon regiment.

"May I ask, sir, by which road I am to proceed with this dispatch?"

"By the river, sir," said the heavy; a large dark-browed man, with a most forbidding look. "You'll soon see the troops: you'd better stir yourself, sir, or Sir Arthur is not very likely to be pleased with you."

Without venturing a reply to what I felt a somewhat unnecessary taunt, I dashed spurs to my horse, and turned towards the river. I had not gained the bank above a minute, when the loud roaring of a rifle

struck upon my ear: bang went another, and another. I hurried on however, at the top of my speed, thinking only of my mission and its pressing haste. As I turned an angle of the stream, the vast column of the British came in sight, and scarcely had my eye rested upon them when my horse staggered forwards, plunged twice with his head nearly to the earth, and then rearing madly up, fell backwards upon the ground. Crushed and bruised as I felt by my fall, I was soon aroused to the necessity of exertion; for, as I disengaged myself from the poor beast, I discovered he had been killed by a bullet in the counter; and scarcely had I recovered my legs when a shot struck my shako and grazed my temples. I quickly threw myself to the ground, and creeping on for some yards, reached at last some rising ground, from which I rolled gently downwards into a little declevity, sheltered by the bank from the French fire.

When I arrived at head quarters, I was dreadfully fatigued and heated; but resolving not to rest till I had delivered my despatches, I hastened towards the convent of La Sierra, where I was told the commander in-chief was.

As I came into the court of the convent, filled with general officers and people of the staff, I was turning to ask how I should proceed, when Hixley caught my eye.

"Well, O'Malley, what brings you here?"

"Despatches from General Murray."

"Indeed: oh, follow me."

He hurried me rapidly through the buzzing crowd, and ascending a large gloomy stair introduced me into a room, where about a dozen persons in uniform were writing at a long deal table.

"Captain Gordon," said he, addressing one of them, "despatches requiring immediate perusal have just been brought by this officer."

Before the sentence was finished the door opened, and a short slight man, in a gray undress coat, with a white cravat and a cocked hat, entered. The dead silence that ensued was not necessary to assure me that he was one in authority; the look of command, his bold, stern features presented; the sharp piercing eye; the compressed lip; the impressive expression of the whole face, told plainly that he was one who held equally himself and others in mastery.

"Send General Sherbroke here," said he to an aid-de-camp. "Let the light brigade march into position," and then turning suddenly to me, "whose dispatches are these?"

"General Murray's, sir."

I needed no more than that look to assure me that this was he of whom I had heard so much, and of whom the world was still to hear so much more.

He opened them quickly, and glancing his eye across the contents, crushed the paper in his hand. Just as he did so a spot of blood upon the envelope attracted his attention.

"How's this! you are wounded?"

"No; sir; my horse was killed——"

"Very well, sir; join your brigade. But stay, I shall have orders for you.

Well Waters, what news?"

This question was addressed to an officer in a staff uniform, who entered at the moment, followed by the short and bulky figure of a monk,

his shaven crown and large cassock strongly contrasting with the gorgeous glitter of the costumes around him.

"I say, who have we here?"

"The Prior of Amarante, sir," replied Waters, "who has just come over. We have already, by his aid, secured three large barges ——."

"Let the artillery take up position in the Convent at once," said Sir Arthur, interrupting. "The boats will be brought round to the small creek beneath the orchard. You, sir," turning to me, "will convey to General Murray—But you appear weak. You, Gordon, will desire Murray to effect a crossing at Avintas with the Germans and the 14th. Sherbroke's division will occupy the villa Nuova. What number of men can that seminary take?"

"From three to four hundred, sir. The padre mentions that all the vigilance of the enemy is limited to the river below the town."

"I perceive it," was the short reply of Sir Arthur, as placing his hands carelessly behind his back, he walked towards the window, and looked out upon the river.

All was still as death in the council: not a lip murmured; the feeling of respect for him in whose presence we were standing, checked every thought of utterance, while the stupendious gravity of the events before us, engrossed every mind and occupied every heart. I was standing near the window; the effect of my fall had stunned me for a time, but I was gradually recovering, and watched with a thrilling heart the scene before me. Great and absorbing as was my interest in what was passing without, it was nothing compared with what I felt as I looked at him upon whom our destiny was then hanging. I had ample time to scan his features and canvass their every lineament. Never before did I look upon such perfect impassibility: their cold determined expression was crossed by no show of passion or impatience. All was rigid and motionless, and, whatever might have been the workings of the spirit within, certainly no external signs betrayed them; and yet what a moment for him must that have been! Before him, separated by a deep and rapid river, lay the conquering legions of France, led on by one second alone to him, whose very name had been the *prestige* of victory. Unprovided with every regular means of transport, in the broad glare of day, in open defiance of their serried ranks and thundering artillery, he dared the deed. What must have been his confidence in the soldiers he commanded! What must have been his reliance upon his own genius! As such thoughts rushed through my mind, the door opened and an officer entered hastily, and whispering a few words to Colonel Waters, left the room.

"One boat is already brought up to the crossing-place, and entirely concealed by the wall of the orchard"

"Let the men cross," was the brief reply.

No other word was spoken, as turning from the window, he closed his telescope, and, followed by all the others descended to the court-yard.

This simple order was enough; an officer, with a company of the Buffs, embarked, and thus began the passage of the Douro.

So engrossed was I in my vigilant observation of our leader, that I would gladly have remained at the Convent, when I received an order to join my brigade, to which a detachment of artillery was already proceeding.

As I reached Avintas all was in motion. The cavalry was in readiness beside the river; but as yet no boats had been discovered, and such was the impatience of the men to cross, it was with difficulty they were prevented trying the passage by swimming, when suddenly Power appeared, followed by several fishermen. Three or four small skiffs had been found, half sunk in mud, among the rushes, and with such frail assistance we commenced to cross.

"There will be something to write home to Galway soon Charley, or I'm terribly mistaken," said Fred, as he sprung into the boat beside me; "was I not a true prophet, when I told you, 'We'd meet the French in the morning?'"

"They're at it already," said Hixley, as a wreath of blue smoke floated across the stream below us, and the loud boom of a large gun resounded through the air.

Then came a deafening shout, followed by a rattling volley of small arms, gradually swelling into a hot sustained fire, through which the cannon pealed at intervals. Several large meadows lay along the river side, where our brigade was drawn up as the detachments landed from the boats; and here, although nearly a league distant from the town, we now heard the din and crash of battle, which increased every moment. The cannonade from the Sierra convent, which at first was merely the fire of signal guns, now thundered away in one long roll, amid which the sounds of falling walls and crashing roofs was mingled. It was evident to us, from the continual fire kept up, that the landing had been effected, while the swelling tide of musketry told that fresh troops were momentarily coming up.

In less than twenty minutes our brigade was formed, and we now only waited for two light four-pounders to be landed, when an officer galloped up in haste and called out:—

"The French are in retreat," and pointing at the same moment to the Vallonga road, we saw a long line of smoke and dust leading from the town, through which, as we gazed, the colours of the enemy might be seen, as they defiled, while the unbroken line of the waggons and heavy baggage proved that it was no partial movement, but the army itself retreating.

"Fourteenth, threes about, close up, trot," called out the loud and manly voice of our leader, and the heavy tramp of our squadrons shook the very ground, as we advanced towards the road to Vallonga.

As we came on, the scene became one of overwhelming excitement; the masses of the enemy that poured unceasingly from the town could now be distinguished more clearly, and amid all the crash of gun carriages and caissons, the voices of the staff officers rose high as they hurried along the retreating battalions. A troop of flying artillery galloped forth at top speed, and wheeling their guns into position with the speed of lightning, prepared by a flanking fire to recover the retiring column, The gunners sprung from their seats, the guns were already unlimbered, when Sir George Murray, riding up at our left called out:—

"Forward; close up; charge?"

The word was scarcely spoken, when a loud cheer answered the welcome sound, and the same instant the long line of shining helmets passed with the speed of a whirlwind: the pace increased at every stride, the ranks grew closer, and like the dread force of some mighty

engine we fell upon the foe. I have felt all the glorious enthusiasm of a fox-hunt, when the loud cry of the hound, answered by the cheer of the joyous huntsman, stirred the very heart within, but never till now did I know how far higher the excitement reaches, when man to man, sabre to sabre, arm to arm, we ride to the battle-field. On we went, the loud shout of "forward" still ringing in our ears. One broken, irregular discharge, from the French guns, shook the head of our advancing column, but stayed us not as we galloped madly on.

I remember no more: the din, the smoke, the crash—the cry for quarter, with the shout of victory—the flying enemy—the agonizing shrieks of the wounded—are all co-mingled in mind, but leave no trace of clearness or connection between them; and it was only when the column wheeled to reform, behind the advancing squadrons, that I awoke from my trance of maddening excitement, and perceived that we had carried the position, and cut off the guns of the enemy.

"Well done, 14th!" said an old gray-headed colonel, as he rode along our line; "gallantly done, lads!" The blood trickled from a sabre cut on his temple, along his cheek, as he spoke; but he either knew it not, or heeded it not.

"There go the Germans!" said Power, pointing to the remainder of our brigade, as they charged furiously upon the French infantry, and rode them down in masses.

Our guns came up at this time, and a plunging fire was opened upon the thick and retreating ranks of the enemy; the carnage must have been terrific, for the long breaches in their lines showed where the squadrons of the cavalry had passed, or the most destructive tide of the artillery had swept through them. The speed of the flying columns grew momentarily more; the road became blocked up, too, by broken carriages and wounded: and, to add to their discomfiture, a damaging fire now opened from the town upon the retreating column, while the brigade of Guards and the 29th pressed hardly on their rear.

The scene was now beyond anything maddening in its interest. From the walls of Oporto the English infantry poured forth in pursuit; while the whole river was covered with boats, as they still continued to cross over. The artillery thundered from the Sierra, to protect the landing, for it was even still contested in places; and the cavalry, charging in flank, swept the broken ranks, and bore down upon their squares.

It was now, when the full-tide of victory ran highest in our favour, that we were ordered to retire from the road. Column after column passed before us, unmolested and unassailed; and not even a cannon-shot arrested their steps.

Some unaccountable timidity of our leader directed this movement: and while before our very eyes the gallant infantry were charging the retiring columns, we remained still and inactive.

How little did the sense of praise we had already won repay us for the shame and indignation we experienced at this moment, as with burning cheek and compressed lip we watched the retreating files. "What can he mean?" "Is these not some mistake?" "Are we never to charge?" were the muttered questions around, as a staff-officer galloped up with the order to take ground still farther back, and nearer to the river.

The word was scarcely spoken, when a young officer, in the uniform of a general, dashed impetuously up; he held his plumed cap high above his head, as he called out, "14th, follow me! Left face—wheel—charge!"

So, with the word, we were upon them. The French rear-guard was at this moment at the narrowest part of the road, which opened by a bridge upon a large open space, so that, forming with a narrow front, and favoured by a declivity in the ground, we actually rode them down. Twice the French formed, and twice were they broken. Meanwhile, the carnage was dreadful on both sides; our fellows dashing madly forward where the ranks were thickest, the enemy resisting with the stubborn courage of men fighting for their last spot of ground. So impetuous was the charge of our squadroms, that we stopped not, till piercing the dense column of the retreating mass, we reached the open ground beyond. Here we wheeled, and prepared once more to meet them; when suddenly some squadrons of cuirassiers debouched from the road, and, supported by a field-piece, showed front against us. This was the moment that the remainder of our brigade should have come to our aid, but not a man appeared. However, there was not an instant to be lost; already the plunging fire of the four-pounder had swept through our files, and every moment increased our danger.

"Once more, my lads, forward!" cried out our gallant leader, Sir Charles Stewart, as, waving his sabre, he dashed into the thickest of the fray.

So sudden was our charge, that we were upon them before they were prepared. And here ensued a terrific struggle; for, as the cavalry of the enemy gave way before us, we came upon the close ranks of the infantry at half-pistol distance, who poured a withering volley into us as we approached. But what could arrest the sweeping torrent of our brave fellows, though every moment falling in numbers?

Harvey, our major, lost his arm near the shoulder: scarcely an officer was not wounded. Power received a deep sabre cut in the cheek, from an aid-de-camp of General Foy, in return for a wound he gave the General; while I, in my endeavour to save General Laborde, when unhorsed, was cut down through the helmet, and so stunned, that I remembered no more around me: I kept my saddle, it is true, but I lost every sense of consciousness; my first glimmering of reason coming to my aid as I lay upon the river bank, and felt my faithful follower Mike bathing my temples with water, as he kept up a running fire of lamentations for my being murthered so young.

"Are you better, Mister Charles? Spake to me, alanah; say that you're not kilt, darling—do now. Oh, wirrah! what'll I ever say to the master? and you doing so beautiful? Would'nt he give the best baste in his stable to be looking at you to-day? There, take a sup; it's only water. Bad luck to them, but it's hard work beatin' them; they're only gone now. That's right—now you're coming to."

"Where am I, Mike?"

"It's here you are, darling, resting yourself."

"Well, Charley, my poor fellow, you've got sore bones too," cried Power, as, his face swathed in bandages, he lay down on the grass beside me. "It was a gallant thing while it lasted, but has cost us dearly. Poor Hixley———"

"What of him?" said I, anxiously.

"Poor fellow! he has seen his last battle-field. He fell across me, as we came out upon the road: I lifted him up in my arms, and bore him along above fifty yards; but he was stone dead—not a sigh, not a word escaped him;—shot through the forehead." As he spoke his lips trembled, and his voice sunk to a mere whisper at the last words,—"You remember what he said last night.—"Poor fellow! he was every inch a soldier."

Such was his epitaph.

I turned my head towards the scene of our late encounter; some dismounted guns and broken wagons alone marked the spot; while, far in the distance, the dust of the retreating columns showed the beaten enemy, as they hurried towards the frontiers of Spain.

THE CRAYON PAPERS.

To the Editor of the Knickerbocker:

Sir,—I send you a few more extracts from my traveling note-books. They are the first sketchings of a series of essays, narrative, descriptive, and characteristic, which I intended to improve and extend at my leisure, but which I have suffered for years to lie neglected among my papers, until the subjects of which they treat are almost out of date. Such as they are, I trust them to the indulgence of your readers.

Your obt. servt.,

Geoffrey Crayon.

PARISIAN SKETCHES IN 1825.

ENGLISH AND FRENCH CHARACTER.

As I am a mere looker on in Europe, and hold myself as much as possible aloof from its quarrels and prejudices, I feel something like one overlooking a game, who, without any great skill of his own, can occasionally perceive the blunders of much abler players. This neutrality of feeling enables me to enjoy the contrasts of character presented in this time of general peace; when the various people of Europe, who have so long been sundered by wars, are brought together, and placed side by side in this great gathering place of nations. No great contrast, however, is exhibited, than that of the French and English. The peace has deluged this gay capital with English visitors, of all ranks and conditions. They throng every place of curiosity and amusement; fill the public gardens, the galleries, the cafés, saloons, theatres; always herding together, never associating with the French. The two nations are like two threads of different colors, tangled together, but never blended.

In fact, they present a continual antithesis, and seem to value themselves upon being unlike each other; yet each have their peculiar merits, which should entitle them to each other's esteem. The French intellect is quick and active. It flashes its way into a subject with the rapidity of lightning; seizes upon remote conclusions with a sudden bound, and its

deductions are almost intuitive. The English intellect is less rapid, but more persevering; less sudden, but more sure in its deductions. The quickness and mobility of the French enable them to find enjoyment in the multiplicity of sensations. They speak and act more from immediate impressions than from reflection and meditation. They are therefore, more social and communicative; more fond of society, and of places of public resort and amusement. An Englishman is more reflective in his habits. He lives in the world of his own thoughts, and seems more self-existent and self dependent. He loves the quiet of his own apartment: even when abroad, he in a manner makes a little solitude around him, by his silence and reserve: he moves about shy and solitary, and as it were, buttoned up, body and soul.

The French are great optimists: they seize upon every good as it flies, and revel in the passing pleasure. The Englishman is too apt to neglect the present good, in preparing against the possible evil. However adversities may lower, let the sun shine but for a moment, and forth sallies the mercurial Frenchman, in holiday dress, and holiday spirits, gay as a butterfly, as though his sunshine were perpetual; but let the sun beam never so brightly, so there be but a cloud in the horizon, the wary Englishman ventures forth distrustfully, with his umbrella in his hand.

The Frenchman has a wonderful facility at turning small things to advantage. No one can be gay and luxurious on smaller means; no one requires less expense to be happy. He practices a kind of gilding in his style of living, and hammers out every guinea into gold leaf. The Englishman, on the contrary, is expensive in his habits, and expensive in his enjoyments. He values every thing, whether useful or ornamental, by what it costs. He has no satisfaction in show, unless it be solid and complete. Every thing goes with him by the square foot. Whatever display he makes, the depth is sure to equal the surface.

The Frenchman's habitation, like himself, is open, cheerful, bustling and noisy. He lives in a part of a great hotel, with wide portal, paved court, a spacious dirty stone staircase, and a family on every floor. All is clatter and chatter. He is good humored and talkative with his servants, sociable with his neighbors and complaisant to all the world—Any body has access to himself and his apartments; his very bed room is open to visitors, whatever may be its state of confusion; and all this not from any peculiarly hospitable feeling, but from the communicative habit which predominates over his character.

The Englishman, on the contrary, ensconces himself in a snug brick mansion, which he has all to himself; locks the front door; puts broken bottles along his walls, and spring-guns and man-traps in his gardens; shrouds himself with trees and window-curtains, exults in his quiet and privacy, and seems disposed to keep out noise, daylight, and company. His house, like himself, has a reserved, inhospitable exterior; yet whoever gains admittance, is apt to find a warm heart and warm fireside within.

The French excel in wit; the English in humor: the French have gayer fancy, the English richer imagination. The former are full of sensibility; easily moved, and prone to sudden and great excitement; but their excitement is not durable: the English are more phlegmatic; not so readily affected; but capable of being aroused to great enthusiasm.—The faults of these opposite temperaments are, that the vivacity of the French is apt to sparkle up and be frothy, the gravity of the English to

settle down and grow muddy. When the two characters can be fixed in a medium, the French kept from effervescence and the English from stagnation, both will be found excellent.

This contrast of character may also be noticed in the great concerns of the two nations. The ardent Frenchman is all for military renown; he fights for glory, that is to say, for success in arms. For, provided the national flag is victorious, he cares little about the expense, the injustice, or the inutility of the war. It is wonderful how the poorest Frenchman will revel on a triumphant bulletin: a great victory is meat and drink to him; and at the sight of a military sovereign, bringing home captured cannon and captured standards, he throws up his greasy cap in the air, and is ready to jump out of his wooden shoes for joy.

John Bull, on the contrary, is a reasoning, considerate person. If he does wrong, it is in the most rational way imaginable. He fights because the good of the world requires it. He is a moral person, and makes war upon his neighbor for the maintenance of peace and good order, and sound principles. He is a money making personage, and fights for the prosperity of commerce and manufactures. Thus the two nations have been fighting, time out of mind, for glory and good. The French, in pursuit of glory, have had their capital twice taken; and John, in pursuit of good, has run himself over head and ears in debt.

THE TUILLERIES AND WINDSOR CASTLE.

I HAVE sometimes fancied I could discover national characteristics in national edifices. In the Chateau of the Tuilleries, for instance, I perceive the same jumble for contrarieties that marks the French character; the same whimsical mixture of the great and the little; the splendid and the paltry, the sublime and the grotesque. On visiting this famous pile, the first thing that strikes both eye and ear, is military display. The courts glitter with steel-clad soldiery, and resound with the tramp of horses, the roll of drum, and the bray of trumpet. Dismounted guardsmen patrol its arcades, with loaded carbines, jingling spears, and clanking sabres. Gigantic grenadiers are posted about its stair-cases; young officers of the guards loll from the balconies, or lounge in groups upon the terraces; and the gleam of bayonet from window to window, shows that sentinels are pacing up and down the carridors and ante-chambers. The first floor is brilliant with the splendors of a court. French taste has tasked itself in adorning the sumptuous suites of apartments; nor are the gilded chapel and splendid theatre forgotten, where Piety and Pleasure are next door neighbors, and harmonize together with perfect French *bienseance*.

Mingled up with all this regal and military magnificence, is a world of whimsical and make-shift detail. A great part of the huge edifice is cut up into little chambers and nestling-places for retainers of the court, dependants on retainers, and hangers on of dependants. Some are squeezed into narrow entre-sols, those low, dark, interdediate slices of apartments between floors, the inhabitants of which seem shoved in edge ways, like books between narrow shelves; others are pearched, like swallows, under the eaves; the high roofs, too, which are as tall and steep as a French cocked-hat, have rows of little dormant windows, tier above tier, just large enough to admit light and air for some dormitory, and to enable its occupant to peep out at the sky. Even to the very ridge of the roof, may be seen here and there, one of these air-holes, with a

stove pipe beside it, to carry off the smoke from the handful of fuel with which its weasen-faced tenant simmers his *demi-tasse* of coffee.

On approaching the palace from the Pont Royal, you take in at a glance all the various strata of inhabitants; the garreteer in the roof; the retainer in the entre-sol; the courtiers at the casements of the royal apartments; while on the ground floor a stem of savory odors, and a score or two of cooks in white caps, bobbing their heads about the windows, betray that scientific and all important laboratory, the Royal Kitchen.

Go into the grand ante-chamber of the royal apartments on Sunday, and see the mixture of Old and New France: the old emigrées, returned with the Bourbons; little withered, spindle-shanked old noble men, clad in court-dresses, that figured in these saloons before the revolution, and have been carefully treasured up during their exile: with the solitaries and *ailes de pigeon* of former days: and the court swords strutting out behind, like pins stuck through dry beetles. See them haunting the scenes of their former splendor, in hopes of a restitution of estates, like ghosts haunting the vicinity of buried treasure: while around them you see the Young France, that have grown up in the fighting school of Napoleon; all equipped *en militaire*: tall, hardy, frank, vigorous, sun-burnt, fierce-whiskered; with tramping boots, towering crests, and glittering breast-plates.

It is incredible the number of ancient and hereditary feeders on royalty said to be housed in this establishment. Indeed all the royal palaces abound with noble families returned from exile, and who have nestling places allotted them while they await the restoration of their estates, or the much-talked-of law indemnity. Some of them have fine quarters but poor living. Some families have but five or six hundred francs a year, and all their retinue consists of a servant woman. With all this, they maintain their old aristocratical *hauteur*, look down with vast contempt upon the opulent families which have risen since the revolution; stigmatize them all as *parvenues*, or upstarts, and refuse to visit them.

In regarding the exterior of the Tuilleries, with all its outward signs of internal populousness, I have often thought what a rare sight it would be to see it suddenly unroofed, and all its nooks and corners laid open to the day. It would be like turning up the stump of an old tree and dislodging the world of grubs, and ants, and beetles lodged beneath. Indeed there is a scandalous anecdote current, that in the time of one of the petty plots, when petards were exploded under the windows of the Tuilleries, the police made a sudden investigation of the place at four o'clock in the morning; when a scene of the most whimsical confusion ensued. Hosts of supernumerary inhabitants were found foisted into the huge edifice: every rat-hole had its occupant; and places which had been considered as tenanted only by spiders, were found crowded with a surreptitious population. It is added, that many ludicrous accidents occurred; great scampering and slamming of doors, and whisking away in night-gowns and slippers; and several persons, who were found by accident in their neighbors' chambers, evinced indubitable astonishment at the circumstance.

As I have fancied I could read the French character in the national palace of the Tuilleries, so I have pictured to myself some of the traits of John Bull in his royal abode of Windsor Castle. The Tuilleries, outwardly a peaceful palace, is in effect a swaggering military hold; while

the old castle, on the contrary, in spite of its bullying look, is completely under petticoat government. Every corner and nook is built up into some snug, cosy nestling place, some 'procreant cradle,' not tenented by meagre expectants or whiskered warriors, but by sleek place-men; knowing realizers of present pay and present pudding; who seem placed there not to kill and destroy, but to breed and multiply. Nursery maids and children shine with rosy faces at the windows, and swarm about the courts and terraces. The very soldiery have a pacific look, and when off duty, may be seen loitering about the place with the nursery maids; not making love to them in the gay gallant style of the French soldiery, but with infinite bonhommie aiding them to take care of the broods of children.

Though the old castle is in decay every thing about it thrives: the very crevices of the walls are tenanted by swallows, rooks, and pigeons, all sure of quiet lodgment: the ivy strikes its roots deep in the fissures, and flourishes about the mouldering tower.* Thus it is with honest John: according to his own account, he is ever going to ruin, yet every thing that lives on him, thrives and waxes fat. He would fain be a soldier, and swagger like his neighbors; but his domestic, quiet-loving, uxorious nature continually gets the upper hand; and though he may mount his helmet and gird on his sword, yet he is apt to sink into the plodding, pains-taking father of a family; with a troop of children at his heels, and his women-kind hanging an each arm.

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THE FIELD OF WATERLOO.

I HAVE spoken heretofore with some levity on the contrast that exists between the English and French character; but it deserves more serious consideration. They are the two great nations of modern times most diametrically opposed, and most worthy of each others rivalry; essentially distinct in their characters, excelling in opposite qualities, and reflecting lustre on each other by their very opposition. In nothing is this contrast more strikingly evinced than in their military conduct. For ages have they been contending, and for ages have they crowded each other's history with acts of splendid heroism. Take the battle of Waterloo, for instance, the last and most memorable trial of their rival prowess. Nothing could surpass the brilliant daring on the one side, and the steadfast enduring on the other. The French cavalry broke like waves on the compact squares of English infantry. They were seen galloping round those serried walls of men, seeking in vain for an entrance; tossing their arms in the air, in the heat of their enthusiasm, and braving the whole front of battle. The British troops, on the other hand, forbidding to move or fire, stood firm and enduring. Their columns were ripped up by cannonry; whole rows were swept down at a shot: the survivors closed their ranks and stood firm. In this way many columns stood through the pelting of the iron tempest without firing a shot; without any action to stir their blood, or excite their spirits. Death thinned their ranks but could not shake their souls.

A beautiful instance of the quick and generous impulse to which the French are prone, is given in the case of a French cavalier, in the hottest of the action, charging furiously upon a British officer, but perceiving in

* NOTE.—The above sketch was written before the thorough repairs and magnificent additions that have been made of late years to Windsor Castle.

the moment of assault that his adversary had lost his sword-arm, dropping the point of his sabre, and courteously riding on. Peace be with that generous warrior, whatever were his fate! If he went down in the storm of battle, with the foundering fortunes of his chieftain, may the turf of Waterloo grow green above his grave!—and happier far would be the fate of such a spirit, to sink amidst the tempest, unconcious of defeat, than to survive, and mourn over the blighted laurels of his country.

In this way the two armies fought through a long and bloody day.—The French with enthusiastic valor, the English with cool, inflexible courage, until Fate, as if to leave the question of superiority still undecided between two such adversaries, brought up the Prussians to decide the fortunes of the field.

It was several years afterward, that I visited the field of Waterloo. The ploughshare had been busy with its oblivious labors, and the frequent harvest had nearly obliterated the vestiges of war. Still the blackened ruins of Hougemont stood, a monumental pile, to mark the violence of this vehement struggle. Its broken walls, pierced by bullets, and shattered by explosions, showed the deadly strife that had taken place within; when Gaul and Britain, hemmed in between narrow walls, hand to hand and foot to foot, fought from garden to court-yard, from court-yard to chamber, with intense and concentrated rivalship.—Columns of smoke turned from this vortex of battle as from a volcano: 'it was,' said my guide, 'like a little hell upon earth.' Not far off, two or three broad spots of rank, unwholesome green still marked the places where these rival warriors, after their fierce and fitful struggle, slept quietly together in the lap of their common mother earth. Over all the rest of the field, peace had resumed its sway. The thoughtless whistle of the peasant floated on the air, instead of the trumpets clangor; the team slowly labored up the hill-aide, once shaken by the hoofs of rushing squadrons; and wide fields of corn waved peacefully over the soldiers' graves, as summer seas dimple over the place where many a tall ship lies buried.

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To the foregoing desultory notes on the French military character, let me append a few traits which I picked up verbally in one of the French provinces. They may have already appeared in print, but I have never met with them.

At the breaking out of the revolution, when so many of the old families emigrated, a descendant of the great Turrene, by the name of De Latour D'Auvergne, refused to accompany his relations, and entered into the Republican army. He served in all the campaigns of the Revolution, distinguished himself by his valor, his accomplishments, and his generous spirit, and might have risen to fortune and to the highest honors. He refused, however, all rank in the army, above that of captain, and would receive no recompence for his achievements but a sword of honor. Napoleon, in testimony of his merits, gave him the title of Premier Grenadier de France, (First Grenadier of France,) which was the only title he would ever bear. He was killed in Germany, in 1809, or '10. To honor his memory, his place was always retained in his regiment, as if he still occupied it; and whenever the regiment were mustered, and the name of De Latour D'Auvergne was called out, the reply was: 'Dead on the field of honor!'

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